



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

UC-NRLF



\$B 142 444



LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA.
GIFT OF

Institution of Civil Engineers.

Received *Oct.* 1895.

Accessions No. *60858* . Class No. *1*



Presented
to

The University of California

by

The Institution of Civil Engineers.

CATALOGUE

OF THE

LIBRARY

OF

THE INSTITUTION OF CIVIL ENGINEERS, *1895*

A—G



LONDON:

Published by the Institution,

GREAT GEORGE STREET, WESTMINSTER, S.W.

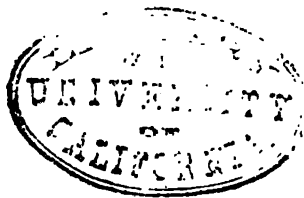
[TELEGRAMS: "INSTITUTION, LONDON." TELEPHONE, "3051."]

1895.

Z792.
L65I6
v. 1

60858
LONDON:

PRINTED BY WILLIAM CLOWES AND SONS, LIMITED,
STAMFORD STREET AND CHARING CROSS.



PREFACE.

THE present Catalogue has been formed by abbreviation and amalgamation of the Catalogue printed in 1866, and the titles written for books acquired since that date. Considerable changes have been made in the methods of selecting the headings, and dates or conjectural dates have with a few exceptions been assigned to the books. The headings are selected according to the following plan :

I. *Non-official* publications appear under the authors' names ; failing such names, under those of the persons, places, etc., of which they treat ; failing that, under the heading ANONYMOUS. Journals and periodicals are arranged in alphabetical order under the heading PERIODICAL PUBLICATIONS. Works entered under the two last-named headings also appear under the names of their authors, when possible.

II. *Official* publications relating to particular persons, places, etc., appear under such names ; those of a general nature under the Governments or corporate bodies issuing them.

Official publications also appear in many cases under the names of their authors.

Owing to the doubtful orthography of Indian names, these are all grouped together under the heading INDIA, instead of appearing in their proper alphabetical order.

The larger non-personal headings, such as LONDON, EDINBURGH, have been sub-divided according to *subject*.

Societies appear under their respective names, when these are well known, but otherwise under the places where they meet :

e.g. ROYAL SOCIETY.

LIÈGE.—*Association des ingénieurs sortis de l'École de Liège.*

In order to make the Catalogue complete to the close of the year 1894, the titles of works acquired while it was in the press, as well as of those omitted from the general body of the work, have been included in the Addenda.

The Catalogue of the Horological Library, bequeathed to the Insti-

tution by the late B. L. Vulliamy, Assoc. Inst. C.E., forms an appendix.

The volumes now issued do not contain the index of subjects. This part of the Catalogue is in preparation, and will be issued separately at as early a date as possible. It has, however, been judged advisable that publication even in part should not be longer delayed, the more so as the arrangement now adopted for the first portion has resulted in its containing much of the information usually found in a subject-catalogue.

It only remains to add that it is proposed to take advantage of the increased room which will be afforded by the new library, when the rebuilding of the premises is completed, to rearrange the books, the scattered nature of the accommodation in the late building having gradually become the source of trouble and inconvenience. Much simplification will also result from numbering the cases and lettering the shelves, instead of the converse practice which existed in the old library, and in the course of time led to the compulsory use of three forms of each letter of the alphabet.

LIBRARY CATALOGUE

OF

THE INSTITUTION OF CIVIL ENGINEERS.

A.

ABADIE, A. Étude sur les chemins de fer de montagne du système
Abt. *Tract.* 4to. vol. 104. *Paris*, 1886. 4to.

ABATE, F. Progetto per la condotta in Napoli di 100,000 metri cubi
al giorno delle acque di Serino. *Tract.* 4to. vol. 76.
Napoli, 1870. 4to.

— Studii sull' acquidotto Claudio e progetto per fornire d'acqua
potabile la città di Napoli. *Tract.* 4to. vol. 76.
Napoli, 1864. 4to.

ABBATT, R. A treatise on the Calculus of Variations.
Lond. 1836. 12mo.

ABBOT, G. An Essay on the Mines of England, their importance
as a source of national wealth, etc. *Lond.* 1833. 8vo.
(Printed for private circulation.)

— [Observations on the proper selection and administration of the
Metalliferous Mineral Royalties and Properties of this country.]
Tract. 8vo. vol. 78. *Lond.* [1840?] 8vo.

ABBOT, H. L., *U.S. Army*. Course of lectures upon the Defence of
the Sea-coast of the United States, etc. *New York*, 1888. 8vo.

— The Earth Wave at the destruction of Flood Rock. *Tract.* 8vo.
vol. 406. *New York Harbour*, 1885. 8vo.

— On the velocity and transmission of Earth Waves. *Tract.* 8vo.
vol. 406. *New York Harbour*, 1878. 8vo.

— Physics and Hydraulics of the Mississippi: reply to criticisms
by Dr. Hagen. 1878. See HUMPHREYS, A. A., and ABBOT, H. L.

— Recent progress in High Explosives and their uses in war. *Tract.*
8vo. vol. 406. [1886?] 8vo.

— Report respecting the Rackarock to be used in the explosion at
Flood Rock. *Tract.* 8vo. vol. 406.
New York Harbour, 1886. 8vo.

ABBOT, H. L., *U.S. Army*. Report upon experiments and investigations to develop a system of Submarine Mines for defending the Harbors of the United States, etc. [Professional Papers of the Corps of Engineers, U.S. Army. No. 23.]

Washington, 1881. 4to.

— Shock of the Explosion at Hallet's Point. *Tract. 8vo. vol. 406.*
[1876?] 8vo.

— Siege Artillery in the campaigns against Richmond, with notes on the 15-inch gun, including an algebraic analysis of the trajectory of a shot in its ricochets upon smooth water. [Professional Papers of the Corps of Engineers, U.S. Army. No. 14.]

New York, 1868. 8vo.

ABBOTSBURY RAILWAY. Report by the Board of Trade on the Classification of Merchandise Traffic and Schedule of Maximum Rates, etc. *Lond. 1891. folio.*

ABBOTT, A. V. Testing Machines; their history, construction and use. *New York, 1884. 12mo.*

ABBOTT, F., *Lieut.-Col.* Practical treatise on permanent Bridges for Indian rivers. 2nd edition. With a description of the use of wells for foundations, by Captain P. T. Cautley. *Tract. 8vo. vol. 394.*
Agra, 1850. 8vo.

(From the "Journal of the Asiatic Society of Bengal," 1839.)

ABBOTT, W. The South Eastern Railway. A few facts on its management under Sir Edward Watkin, Bart., M.P., during the years from 1866 to 1888, and its prospects for the future, from a continuance of a system of "supreme authority." *Tract. 4to. vol. 112.*
Lond. 1888. 4to.

ABDANK-ABAKANOWICZ, Br. Les intégraphes. Étude sur un nouveau système d'intégrateurs mécaniques. *Tract. 8vo. vol. 429.*
Paris, 1886. 8vo.

ABEL, C. D. The action of the Patent Laws in promoting invention. *Tract. 8vo. vol. 139.*
Lond. 1864. 8vo.

— Rudimentary and elementary principles of the Construction and working of Machinery. (Atlas of plates.)
Lond. 1860. 8vo. and 4to.

ABEL, C. D., and IMRAY, J. Patents, designs and trade marks, British and foreign. *Lond. 1886. 8vo.*

ABEL, Sir F. A. Accidental Explosions produced by non-explosive liquids. *Tract. 8vo. vol. .*
Lond. 1885. 8vo.

— Address as President of the British Association. *Tract. 8vo. vol. 497.*
Leeds, 1890. 8vo.

— Address delivered at the opening of the session of the Society of Arts. *Tract. 8vo. vol. 395.*
Lond. 1884. 8vo.

— [Another edition.] *Tract. 8vo. vol. 408.*
Lond. 1885. 8vo.

— Les agents explosifs appliqués dans l'industrie. Traduit par G. Richard. *Tract. 8vo. vol. 343.*
Paris, 1881. 8vo.

- ABEL, Sir F. A.**—*continued*. Final report on Experiments bearing upon the question of the condition in which Carbon exists in Steel. *Tract. 8vo. vol. 391. Lond. 1885. 8vo.*
- The Flashing Test for Petroleum. *Tract. 8vo. vol. 433. Manchester, 1883. 8vo.*
- Hardening, &c., of Steel. Report on further experiments. *Tract. 8vo. vol. 437. Lond. 1883. 8vo.*
- Mining Accidents and their prevention: with discussion by leading experts. Also the United States, British and Prussian laws regulating the working of coal mines. *New York, 1889. 8vo.*
- On Accidental Explosions. *Tract. 8vo. vol. 435. Woolwich, 1875. 8vo.*
- On recent investigations and applications of Explosive Agents. *Tract. 8vo. vol. 225. Edinburgh, 1871. 8vo.*
(From the "Proceedings of the British Association.")
- Presidential address delivered at the meeting of the Iron and Steel Institute, May 6, 1891. *Tract. 8vo. vol. 522. Lond. 1891. 8vo.*
- Report . . . on the results of investigations . . . on the application of Electricity . . . to the Explosion of Gunpowder. 1861. See WHEATSTONE, Sir C., and ABEL, Sir F. A.
- Researches on Explosives. 1875. See NOBLE, W. H., and ABEL, Sir F. A.
- Smokeless Explosives. *Tract. 8vo. vol. 490. Lond. 1890. 8vo.*
(Read before the Royal Institution.)
- The work of the Imperial Institute, etc. *Tract. 8vo. vol. 445. Lond. 1887. 8vo.*
- ABEL, Sir F. A., and DEERING, W. H.** Notes on the condition in which Carbon exists in Steel. *Tract. 8vo. vol. 466. Lond. 1883. 8vo.*
(From the Journal of the Chemical Society.)
- ABEL, N. H.** Oeuvres complètes. 2 vols. in 1. *Christiania, 1881. 4to.*
- ABELL, W. P.** The Automatic "Megass Firemen." *Tract. 8vo. vol. 505. Demerara, 1892. 8vo.*
- ABERCARNE COLLIERY.** Report of the Commissioners sent down by the Government to watch the Abercarne [Colliery Explosion] Inquest, etc. *Lond. 1879. folio.*
- ABERCROMBIE, C.** Report respecting a new line of road from Hamilton to Elvanfoot. *Tract. 4to. vol. 4. Glasgow, 1813. 4to.*
- ABERCROMBY, Hon. R.** Principles of Forecasting by means of Weather Charts. *Lond. 1885. 8vo.*
- ABERDARE CANAL.** Act. *Lond. 1793. folio.*
- ABERDEEN.**—*Royal Infirmary.* Description of designs, plans and bird's-eye view of the proposed enlargement. *Tract. 4to. vol. 106. [1887?] 4to*

- ABERDEEN, Steamer.** Report on an explosion on board the Steamer "Aberdeen," 1 March, 1884, by Major Cundill.
Lond. 1884. folio.
- ABERDEEN HARBOUR.** Amended Act, and act for improvement of Aberdeen Harbour.
Lond. 1810-29. folio.
- Evidence of proceedings in the committee of the House of Commons in regard to the Aberdeen Harbour Bill.
Aberdeen, 1839. 8vo.
- Minutes of evidence taken before the Committee of the House of Commons, session 1828, on the Aberdeen Harbour Bill; with the speeches of counsel, etc.
Aberdeen, 1828. 8vo.
- Reports by Smeaton, Rennie and Telford upon the Harbours of Aberdeen. *Tract.* 8vo. vol. 400.
Aberdeen, 1834. 8vo.
- Report by the Harbour Engineer on the Propriety of extending the North Pier and on the improvement of the Harbour Entrance.
Tract. 8vo. vol. 324.
Aberdeen, 1876. 8vo.
- ABERDEEN MECHANICS' INSTITUTION.** Catalogue of the library. *Tract.* 8vo. vol. 121.
Aberdeen, 1854. 8vo.
- ABERDEEN UNIVERSITY.** Calendar, 1893-94, etc.
Aberdeen, 1893, etc. 8vo.
- ABERDEENSHIRE CANAL.** Act, amended act, and act for raising money.
Lond. 1796, 1809. folio.
- ABERDOVEY.** Plan of Aberdovey deviation.
Aberdovey, 1865. 12mo.
- ÅBERG, E.** Irrigacion y eucalyptus. *Buenos Aires,* 1874. 8vo.
- ABERNETHY, J.** Remarks on certain portions of the supplementary report of the Royal Commission on Harbours of Refuge. *Tract.* folio. vol. 7.
Lond. 1859. folio.
- Report to the trustees of Birkenhead Docks. *Tract.* 8vo. vol. 218.
Liverpool, 1850. 8vo.
- River Ouse Improvement. Report.
Lond. 1876. folio.
- ABERNETHY, J. P.** The modern Service of Commercial and Railway Telegraphy, in theory and practice. 6th edition, enlarged.
Cleveland, Ohio, 1887. 8vo.
- ABERT, J. J., Col.** Report on the Canal to connect the Chesapeake and Ohio Canal with the city of Baltimore. *Tract.* 4to. vol. 74.
Washington, 1874. 4to.
- ABERYSTWITH AND WELSH COAST RAILWAY.** Plans and sections. [] 12mo.
- ABNEY, W. de W., Capt.** Cantor lectures on Photography and the Spectroscope.
Lond. 1885. 8vo.
- Cantor lectures on recent advances in Photography.
Lond. 1882. 8vo.
- Instruction in Photography. *Tract.* 8vo. vol. 220.
Chatham, 1871. 8vo.

ABNEY, W. de W., *Capt.—continued*. Notes on the Chemistry of Building Materials, etc., being a synopsis of the course undertaken in the chemical laboratory at the School of Military Engineering, Chatham. 3rd edition, etc. Chatham, 1888. 8vo.

— Photography. [Science Lectures at South Kensington. Vol. I.] Lond. 1878. 8vo.

ABORN, F. Elementary Mechanical Drawing. Cincinnati, 1886. 8vo.

ABRAM COLLIERY. Explosion. Report by A. Young. Lond. 1882. folio

ABT, R. Das System Abt für combinirte Adhäsions- und Zahnradbahnen, 1888. See Böck, F., and ABT, R.

— Die Construction der Zahnschienenbahnen. Tract. 8vo. Würzburg [1886?] 8vo.

— Die drei Rigibahnen und das Zahnradsystem. Zürich, 1877. 4to

— Die Rhone-Bahn: ein Beitrag zur Lösung der Simplon-Frage. Tract. folio. vol. 40. Würzburg, 1886. folio.

— Die Rhone-Bahn Brig-Airolo. Tract. folio. vol. 41. Luzern, 1887. folio.

— Secundärbahnen im Gebirge. Zahnradbahnen (System Riggenbach). [Abdruck aus dem Handbuch für specielle Eisenbahntechnik, herausgegeben von E. Heusinger v. Waldegg.] Tract. 8vo. vol. 482. [1878.] 8vo.

— Zahnradbahnbetrieb, Zahnstange und Zahnrad-Locomotive. Tract. 4to. vol. 111. Luzern, 1888. 4to.

ABT, R., and NEVEU, A. Notice sur le projet de chemin de fer funiculaire à crémaillère, système Abt, de Cauterets à La Raillère. Tract. 4to. vol. 111. Paris, 1883. 4to.

ACADEMIA ESPAÑOLA. See REAL ACADEMIA ESPAÑOLA.

ACADEMIA IMPERIALIS PETROPOLITANA. See ST. PETERSBURG.—Academia, etc.

ACADÉMIE DES SCIENCES. Comptes-rendus hebdomadaires des séances. Vol. 1, (2, etc.). Paris, 1835, etc. 4to.

— Connaissance des temps au méridien de Paris, publié par l'ordre de l'Académie des Sciences. 30 vols. Paris, 1759–1815. 8vo. (Imperfect.)

— Discours prononcés au Muséum d'Histoire Naturelle sur le centenaire de M. Chevreul. Tract. 4to. vol. 105. Paris, 1886. 4to.

— Éléments d'astronomie. Par M. Cassini. Paris, 1740. 4to.

— Éléments de la géométrie de l'infini. Paris, 1729. 4to.

— Journal du voyage fait par ordre du Roi à l'équateur, servant d'introduction historique à la mesure des trois premiers degrés du méridien. Par M. de la Condamine. Paris, 1751. 4to.

ACADÉMIE DES SCIENCES—*continued*. La méridienne de l'observatoire royal de Paris. Par M. Cassini de Thury.

Paris, 1744. 4to.

— Mémoires de l'Institut de France. 1816–1877. 41 vols.

Paris, 1818–77. 4to.

— Mémoires de l'Institut National des Sciences et Arts, pour l'an iv de la république. Sciences, mathématiques et physiques. 14 vols.

Paris, 1799–1818. 4to.

— Mémoires de Mathématiques. (Tables gen. des matières.) 1699–1790. 103 vols.

Paris, 1732–1809. 4to.

— Mémoires présentés à l'Institut des Sciences, Lettres et Arts par divers savans et lus dans ses assemblées. 25 vols.

Paris, 1805–77. 4to.

— Mesure des trois premiers degrés du méridien dans l'hémisphère austral. Par M. de la Condamine.

Paris, 1751. 4to.

— Passage de Vénus sur le soleil. 3 vols. *Paris*, 1877–78. 4to.

— Rapport sur les nouveaux procédés introduits dans l'art du doreur, par MM. Elkington et De Ruolz. *Tract* 4to. vol. 38.

(From the *Comptes rendus*.) *Paris*, 1842. 4to.

— Tables astronomiques dressées et mises en lumière par les ordres de Louis le Grand. Par M. de la Hire.

Paris, 1735. 4to.

— Tables astronomiques du soleil, de la lune, des planètes, des étoiles fixes, et des satellites de Jupiter et de Saturne. Par M. Cassini.

Paris, 1740. 4to.

— Traité physique et historique de l'aurore boréale. Par de Maizan. [Second edition.]

Paris, 1754. 4to.

ACADÉMIE FRANÇAISE. Dictionnaire de l'Académie Française. [6th edition.] 2 vols.

Paris, 1835. 4to.

ACADÉMIE ROYALE DE BELGIQUE.

— Annales de l'Académie. 1836–76. *Bruxelles*, 1836–76. 12mo.
(Vols. for 1837, 52, 55, 59, and 65, missing.)

— Bulletins de l'Académie. Vols. 1 to 23.

Bruxelles, 1836–56. 8vo.

(Vols. 5, 10 pt. 1, 17 pt. 2, 20 pt. 2, 21 and 22 pt. 1, are missing.)

— 2^{me} série. 50 vols.

Bruxelles, 1857–80. 8vo.

— 3^{me} série. Vol. 1, etc.

Bruxelles, 1881, etc. 8vo.

— Annexe aux bulletins. 1853–54.

Bruxelles, 1854. 8vo.

— Catalogue de la bibliothèque de l'Académie Royale des sciences et belles-lettres de Bruxelles. *Tract*. 8vo. vol. 121.

Bruxelles, 1842. 8vo.

— Catalogue de la bibliothèque de M. le Baron de Stassart, léguée à l'Académie Royale de Belgique.

Bruxelles, 1863. 8vo.

— Centième anniversaire de fondation (1772–1872). 2 vols.

Bruxelles, 1872. 8vo.

— Mémoires. 4 vols.

Bruxelles, 1777–83. 4to.

ACADÉMIE ROYALE DE BELGIQUE—*continued.*

- Mémoires couronnées par l'Académie. Vol. 12, *etc.*
Bruxelles, 1837, etc. 4to.
 (Title altered at vol. 15, 2nd part, 1843, to "Mémoires couronnés et mémoires des savants étrangers publiés par, &c.;" and again vol. 19, 1847, to "Mémoires, &c., publiés par l'Académie royale des sciences, des belles lettres et des beaux arts de Belgique.")
- Nouveaux mémoires de l'Académie. Vols. 10–47.
Bruxelles, 1837, etc. 4to.
 (Title altered at vol. 20 to "Mémoires, &c. des lettres et des beaux arts de Belgique.")
- Mémoires couronnées par l'Académie et autres mémoires. Vol. 1, *etc.*
Bruxelles, 1840, etc. 8vo.

ACCADEMIA DEI LINCEI.

Atti. Serie terza.

Transunti. 8 vols. *Roma, 1877–84. 4to.*
 Memorie . . . 19 vols. in 10. *Roma, 1877–84. 4to.*

Atti. Serie quarta.

Rendiconti. Vol. 1, *etc.* *Roma, 1885, etc. 4to.*
 Memorie . . . Vol. 1, *etc.* *Roma, 1885, etc. 4to.*

ACCADEMIA PONTIFICIA DE' NUOVI LINCEI. Atti. Vol. 33
 (pt. 1) and vol. 34, *etc.* *Roma, 1880, etc. 4to.*

(Imperfect. Parts wanting in vols. 35, 43–45.)

- Atti . . . Serie iniziata per ordine della S. D. N. S. Pape Leone XIII. 6 vols. *Roma, 1887–90. 4to.*

ACCRINGTON. Form of Tender, specifications, conditions and bill of quantities for the construction of Public Abattoirs . . . for the Accrington Corporation. *Accrington, 1889. 4to.*ACCUM, F. A practical Treatise on Gaslight. . . . With remarks on the utility, safety, and general nature of this new branch of civil economy. 2nd edition. *Lond. 1815. 8vo.*

- Description of the process of manufacturing Coal-gas : with elevations, sections, and plans of the most approved sorts of apparatus, *etc.* *Lond. 1819. 8vo.*

- — 2nd edition. *Lond. 1820. 8vo.*

ACHARD, A. De la transmission et de la distribution des forces motrices à grande distance. *Paris, 1876. 8vo.*

- Description d'une roue hydraulique avec arbre en tôle. *Tract. 8vo. vol. 231. Paris, 1872. 8vo.*

- Une distribution municipale de force motrice. *Tract. 8vo. vol. 496. Paris, 1891. 8vo.*

- La sécurité publique sur les chemins de fer et dans les usines à vapeur par l'embrayage électrique. *Tract. 8vo. vol. 182. Grenoble, 1861. 8vo.*

- Public Security on Railways, and in factories where steam-power is applied, by means of the "embrayage électrique." *Tract. 8vo. vol. 182. 1862. 8vo.*

- Travaux publics. La distribution de l'eau et de la force motrice à Genève. *Tract. 4to. vol. 117. Paris, 1890. 4to.*

- ACHARD, F. K. A. [A Biography of Achard. From the "Allgemeine Biographie."] (MS.) *Tract. 8vo. vol. 449.*
Berlin, 1887. 8vo.
- ACLAND, C. T. D. *Railway Rates. Tract. 8vo. vol. 435.*
[Lond. 1887.] 8vo.
 (An extract from the "Contemporary Review.")
- ACLAND, Dr. H. W. *Memoir on the Cholera at Oxford in the year 1854.*
Lond. 1850. 4to.
- ACREFAIR, N. *Wales. Report on Boiler Explosions, Acrefair, North Wales, New British Iron Co.'s Works. Lond. 1882. folio.*
- ACWORTH, W. M. *The Railways of England. Lond. 1889. 8vo.*
- *The Railways of Scotland: their present position. With a glance at their past and a forecast at their future. With a map.*
Lond. 1890. 8vo.
- *The Railways and the Traders: a sketch of the railway rates question.*
Lond. 1891. 8vo.
- ADAIR, S., *Baron Waveney. The Defence of London: an address delivered at the Royal United Service Institution, July 13th, 1860.*
Tract. 8vo. vol. 128. Lond. [1860.] 8vo.
- *The Defences of Portsmouth: a lecture delivered at the Royal United Service Institution. Tract. 8vo. vol. 128.*
Lond. [1860.] 8vo.
- *The Lines of London: defences by works and manœuvre in the field. With an Appendix. Tract. 8vo. vol. 132. [1862.] 8vo.*
- *A Memoir on the defence of East Suffolk. Tract. 8vo. vol. 128.*
Lond. [1860.] 8vo.
- *Militia sketch maps. 3 folding in 8vo. Lond. 1855. 8vo.*
- *The Militia of the United Kingdom; with suggestions for the permanent organization of the force. Tract. 8vo. vol. 128.*
Lond. [1859?] 8vo.
- *The national Defences and Organization of the Militia of the United Kingdom. Tract. 8vo. vol. 128. Lond. [1859?] 8vo.*
- *The Organization and Duties of the Militia of the United Kingdom, considered with reference to invasion. Tract. 8vo. vol. 128.*
Lond. [1858?] 8vo.
- ADAM, ROBERT. *Ruins of the palace of the Emperor Diocletian, at Spalatro, in Dalmatia.*
Lond. 1764. folio.
- ADAM, ROBERT and J. *The works in Architecture of R. and J. Adam, etc. [Two vols. bound in one. English and French.]*
Lond. 1778-9. folio.
- ADAM, ROBERT. *Report respecting the financial affairs of the Edinburgh and district Water Trust. Tract. folio. vol. 26.*
Edinburgh, 1879. folio.
- ADAM, W. *The gem of the Peak; or Matlock Bath and its vicinity. An account of Derby, etc. 3rd edition.*
Lond. 1843. 8vo.

- ADAMS, C. F., *jun.* Notes on Railroad Accidents.
New York, 1879. 12mo.
- Railroads, their origin and problems. New York, 1879. 8vo.
- The Regulation of all Railroads through the state ownership of one. *Tract.* 8vo. vol. 485. Boston, 1873. 8vo.
- ADAMS, E. The Polychromatic Ornament of Italy. Part I.
London. [1849.] 4to.
- ADAMS, G. An essay on Electricity ; to which is added an essay on Magnetism.
London. 1784. 8vo.
- Geometrical and graphical essays, containing a general description of the Mathematical Instruments used in geometry, civil and military surveying, levelling and perspective, etc. Corrected and enlarged by W. Jones. 3rd edition. London. 1803. 8vo.
- ADAMS, H. Apparatus for Weighing. *Tract.* 8vo. vol. 497.
[1889.] 8vo.
- Designing Wrought and Cast Iron structures.
London. 1883. 8vo.
- Handbook for Mechanical Engineers. 2nd, (3rd) edition.
London. 1891, 93. 8vo.
- Hydraulic machinery, past and present. *Tract.* 8vo. vol. 362.
London. 1880. 8vo.
- Inaugural address as President of the Society of Engineers.
Tract. 8vo. vol. 497. London. 1890. 8vo.
- Joints in Woodwork. *Tract.* 8vo. vol. 361. London. 1877. 8vo.
- Notes on Mechanical Engineering. London. 1883. 8vo.
- Opening address as President of the Civil and Mechanical Engineers' Society, Session 1889-90. *Tract.* 8vo. vol. 497.
London. 1890. 8vo.
- Strains in Ironwork. London. 1884. 8vo.
- The Strength of Iron and Steel. *Tract.* 8vo. vol. 495.
London. 1887. 8vo.
- Timber Piling, in foundations and other works. *Tract.* 8vo. vol. .
(Proceedings, Society of Architects.) London. 1891. 8vo.
- The use and care of Chains for lifting and hauling. *Tract.* 8vo. vol. 491. London. 1887. 8vo.
- ADAMS, J. The Elements of the Ellipse, together with the radii of curvature, etc., relating to that curve ; and of centripetal and centrifugal forces in elliptical orbits ; to which is added the first of Dr. M. Stewart's tracts. *Tract.* 8vo. vol. 30. London. 1818. 8vo.
- ADAMS, J. C. An explanation of the observed irregularities in the motion of Uranus, on the hypothesis of disturbances caused by a more distant planet. *Tract.* 8vo. vol. 190. London. 1846. 8vo.
- ADAMS, J. Q. Reports upon Weights and Measures.
Philadelphia, 1821. 8vo.

ADAMS, J. R. Dulwich College and the Endowed Schools' Commissioners. *Tract. 8vo. vol. 229.* *Lond. 1873. 8vo.*

ADAMS, J. W. American Interoceanic Ship Canals. *Tract. 8vo. vol. .* *New York, 1870. 8vo.*

(*Trans. Am. Soc. Civil Engineers, 1870.*)

— Interoceanic Canal Projects. Discussion. *Tract. 8vo. vol. 451.* *New York, 1880. 8vo.*

(*Trans. Am. Soc. Civil Engineers.*)

— Report to the trustees of the Petroleum Light Company, on petroleum as fuel. *Tract. 8vo. vol. 287.* *New York, 1865. 8vo.*

— Sewers and Drains for populous districts, with rules and formulæ for the determination of their dimensions, *etc.* *New York, 1880. 8vo.*

ADAMS, W. Solar Heat a substitute for Fuel in tropical countries, for heating steam boilers and other purposes. *Bombay, 1878. 8vo.*

ADAMS, W. B. English pleasure Carriages; their origin, history, varieties; with an analysis of the construction of common roads and railroads. *Lond. 1837. 8vo.*

— Railway practice and railway possibilities as affecting dividends and safety, with diagrams of engines, trains, and brakes. *Tract. 8vo. vol. 166.* *Lond. 1868. 8vo.*

— Road Progress; or amalgamation of railways and highways for agricultural improvement and steam farming, in Great Britain and the Colonies. *Tract. 8vo. vol. 117.* *Lond. 1850. 8vo.*

— The construction and duration of Permanent Way of Railways in Europe, and the modifications most suitable to Egypt, India, *etc.* *Tract. 8vo. vol. 500.* *Lond. 1854. 8vo.*

(*From Min. Proc. Inst. C.E.*)

ADAMS, W. G. Cantor lectures on the scientific principles involved in Electric Lighting. *Lond. 1881. 8vo.*

— The Alternate-Current Machine as a Motor. *Tract. 8vo. vol. 410.* *[1884.] 8vo.*

— Inaugural address, delivered as President of the Society of Telegraph-Engineers and Electricians for 1884. *Tract. 8vo. vol. 422.* *[Lond. 1884.] 8vo.*

— On the application of Screw Blades as floats for paddle-wheels. *Tract. 8vo. vol. 158.* *[Lond. 1865.] 8vo.*

— On the application of the principle of the Screw to the Floats of paddle-wheels. *Tract. 8vo. vol. 158.* *[Lond. 1865.] 8vo.*

ADAMS, W. H. D. Lighthouses and Lightships. New edition. *Lond. 1878. 8vo.*

ADAMSON, D. On High Pressure Steam generally, and its application to quadruple engines. *Tract. 8vo. vols. 250 and 463.* *Newcastle-upon-Tyne, 1875. 8vo.*

— On some of the Properties of Puddled Iron, ingot iron, and steel, for constructive purposes. *Tract. 8vo. vol. 413.* *Manchester, [1875?] 8vo.*

- ADAMSON, D. On the mechanical and other properties of Iron and mild Steel. *Tract. 8vo. vol. 413. Manchester, 1878. 8vo.*
- ADAMSON, Rev. J. Sketches of our information as to Railroads: also an account of the Stockton and Darlington Railway. *Tract. 8vo. vol. 294. Newcastle, 1826. 8vo.*
- ADAN, M. E. Le calendrier. *Tract. 8vo. vol. 367. Bruxelles, 1879. 8vo.*
- ADCOCK, H. A letter by H. Adcock to the mine proprietors of Great Britain and Ireland, on his Spray Pump. *Tract. 8vo. vol. 78. Birmingham, 1846. 8vo.*
- ADCOCK, T. Engineers' pocket-book for 1861 (1863, 1865, 1867-75, 1886-88). *Lond. 1861-88. 12mo.*
- ADDENBROOKE HOSPITAL, Cambridge. Act for establishing Addenbrooke Hospital, Cambridge. *Lond. 1767. folio.*
- ADDIS, F. H. Self-sustaining pulley-block and buckle. [Description in manuscript and drawing.] *Tract. 8vo. vol. 491. Rajputana, 1890. 8vo.*
- ADDIS, H. B. The Battle of the Gauges: being a copy of a letter addressed to the "Times of India," 2nd December, 1870. *Tract. 8vo. vol. 491. Allahabad, 1873. 8vo.*
- ADDIS, W. J. Map of Bombay. *Bombay, 1866. folio.*
- Specifications and comparative statements of patent single, double, and treble-headed Rails for railways, combining longitudinal sleeper and fishplate. *Tract. folio. vol. 11. Lond. 1868. folio.*
- ADDY, J. The parts of Holland and Bedford Level water-supply. *Tract. 8vo. vol. 496. Stamford, 1878. 8vo.*
- Proposed Nottingham, Stamford, and Huntingdon Railway. *Tract. 8vo. vol. 491. Stamford, 1882. 8vo.*
- Report on the Drainage of Peterborough. *Tract. 8vo. vol. 236. Peterborough, 1874. 8vo.*
- Water Supply for the borough of Peterborough. *Tract. 8vo. vol. 249. Peterborough, 1874. 8vo.*
- ADELAIDE. Drainage of the city of Adelaide. *(Official Report.) Adelaide, 1878. folio.*
- Proposed North Adelaide Reservoir. *Adelaide, [1878.] folio.*
- Railway Bridge Plans to Morphett Street Bridge. *Adelaide, 1882. folio.*
- Reports by Messrs. Brown and Clark on Water Supply and Water Works. *Adelaide, 1877-78. folio.*
- Sewers Act . . . together with rules and regulations. *Adelaide, 1878-82. 4to.*
- Telegraphs. Plan of the Adelaide and Port Darwin Line. *Adelaide, 1874.*
- Jubilee International Exhibition, 1887. Proclamation, list of officers, &c. *Tract. 8vo. vol. 420. Lond. 1886. 8vo.*

- ADELAIDE PHILOSOPHICAL SOCIETY.** Transactions, proceedings, and report for 1877–1880. 3 vols. in 2.
Adelaide, 1878. 8vo.
- ADELAIDE UNIVERSITY.** Calendar for . . . 1888, (1889, *etc.*)
Adelaide, 1888, *etc.* 8vo.
- ADEN.** Three hours in Aden; a short descriptive account of the settlement, for the use of passengers, *etc.* *Bombay*, 1891. 8vo.
- ADENAW, A., and KAVEN, A. von.** Die Baracken-lazareth des Vereins für den Regierungs-bezirk Aachen im Kriege 1870–1871.
Tract. 8vo. vol. 232. *Aachen*, 1872. 8vo.
- ADGER, J. B.** Report on the trial of the "City of Fall River." 1884. See **SAGUE, J. E., and ADGER, J. B.**
- ADHÉMAR, A. d', Count.** Traité pratique de la construction des tramways, chemins de fer à chevaux, dits chemins de fer américains.
Tract. 8vo. vol. 283. *Paris*, [1860?] 8vo.
- ADIE, A. J.** On the Expansion of different kinds of Stone from an increase of temperature, with a description of the pyrometer used in making the experiments. *Tract.* 4to. vol. 38.
Edinburgh, 1835. 4to.
(From the Trans. Royal Society of Edinburgh.)
- ADLER, M. N.** The Temple of Jerusalem: with a report of the remarks of . . . Sir Charles Warren. *Tract.* 8vo. vol. 433.
Lond. 1887. 8vo.
- ADLEY, C. C.** Anglo-Indian Telegraphs, or communication with London in six hours. *Tract.* 8vo. vol. 127. *Calcutta*, 1854. 8vo.
- The Electric Telegraph: its history, theory, and practical applications. *Tract.* 8vo. vol. 500. *Lond.* 1854. 8vo.
(From Min. Proc. Inst. C.E.)
- The Last Chance Silver Mining Company of Utah. Report to the shareholders. *Tract.* 8vo. vol. 273. *New York*, 1877. 8vo.
- The Port of Calcutta: with special reference to the late Cyclone. *Tract.* 8vo. vol. 154. *Lond.* 1864. 8vo.
- The story of the Telegraph in India. *Lond.* 1866. 8vo.
- ADMIRALTY.** Admiralty administration: its faults and its defaults.
Lond. 1861. 8vo.
- Catalogue of charts, plans, views, and sailing directions, *etc.* *Tract.* 8vo. vol. 387. *Lond.* 1875. 8vo.
- Catalogue of the library of the Admiralty. *Lond.* 1858. 8vo.
- [Another edition.] *Lond.* 1875. 4to.
- A collection of all such Statutes and parts of Statutes as in any way relate to the Admiralty, Navy, and ships of war, and other incidental matters. *Lond.* 1742. 4to.
- Chain cables, mooring chains, &c. Specification. *Tract.* folio. vol. 45. *Lond.* 1888. folio.

- ADMIRALTY—*continued*. Chain for rigging cranes, &c. Specification. *Tract. folio. vol. 45.* *Lond. 1889. folio.*
- Experiments on mild Steel. *Lond. 1880. folio.*
- ADOLPH, W. The simplicity of the Creation; or, the astronomical monument of the Blessed Virgin. A new theory of the solar system, thunder-storms, waterspouts, aurora borealis, &c., and the tides. *Lond. 1864. 8vo.*
- ADUR, *River*. An Act for the improvement of the Adur Navigation. *Lond. 1807. folio.*
- AERONAUTICAL SOCIETY. Annual reports. *Lond. 1866, etc. 12mo.*
- Rules. *Tract. 8vo. vol. 224.* *Lond. 1866. 8vo.*
- AFFLECK, T. Patent hydraulic Deepener: an application of the greatest power in nature to the deepening and clearing out of rivers, etc. *Tract. 8vo. vol. 9.* *Glasgow, 1833. 8vo.*
- AFGHANISTAN. Papers relating to Military Operations in Afghanistan. (Parliamentary Paper.) *Lond. 1843. folio.*
- AGAR TOWN, *St. Pancras*. Copy of a report lately made to the Board of Health, in reference to the sanitary condition of Agar Town, St. Pancras. *Lond. 1851. 8vo.*
- AGASSIZ, L. Études sur les glaciers. *Neuchatel, 1840. folio.*
- AGER, G. See BLACKBURN, A. H., and STEVENS, J. Engineering Telegraph Code . . . Code Words by G. Ager. 1892.
- AGNEW, H. C. On the evidence of the practical application of the Quadrature of the Circle in the configuration of the great Pyramids of Gizeh. *Lond. 1838. 4to.*
- AGRICOLA, G. Georgii Agricolae de re metallica libri xii. Quibus officia, instrumenta, machinæ, ac omnia denique ad metallicam spectantia, non modo luculentissime describuntur, sed et per effigies, suis locis insertas, adiunctis Latinis, Germanicisque appellationibus ita ob oculos ponuntur, ut clarius tradi non possint. Ejusdem de animantibus subterraneis liber. *Basileæ, 1556. folio.*
- Georgii Agricolae . . . De re metallica libri xii. Accesserunt . . . tractatus de animantibus subterraneis; de ortu et causis subterraneorum; de natura eorum quæ effluunt ex terrâ; de natura fossiliun, lib. 10; de veteribus et novis metallis; Bermannus, sive de re metallica dialogus. *Basileæ, 1657. folio.*
- AGUDIO, T. Conferenza sui sistemi Agudio e Fell e sulle ferrovie di Soperga e del Monginevra. *Tract. 8vo. vol. 383.* *Torino, 1885. 8vo.*
- Il sistema Agudio per vincere le forti pendenze coi tieni ordinari delle ferrovie, proposta di un'applicazione alla salita di Tivoli. *Tract. 8vo. vol. 303.* *Roma, 1879. 8vo.*
- L'innesto del sistema Agudio alle ferrovie ordinarie. Lettera a S. E. il Ministro dei Lav. Pub. *Tract. 8vo. vol. 303.* *Roma, 1879. 8vo.*

- AGUDIO, T.—*continued*. Italian Exhibition of Florence in 1861. Extract of the report of the jury upon the Agudio Traction Engine. *Tract. 4to. vol. 74. Florence, 1861. 4to.*
- Risposte date dall' ingegnere T. Agudio alla Commissione d'inchiesta sullo esercizio delle ferrovie sotto il punto di vista economico militare col suo sistema di locomozione. *Tract. 4to. vol. 82. Roma, 1880. 4to.*
- Una pronta succursale dei giovi. Memoria tecnica. *Torino, 1887. folio.*
- AGUILLON, L. Exploitation et réglementation des mines à grisou en Belgique, *etc.* 1881. See PERNOLET, A., and AGUILLON, L.
- Législation des mines, française et étrangère. 3 vols. *Paris, 1886. 8vo.*
- Rapport sur la rupture des cables des mines. *Tract. 8vo. vol. 343. Paris, 1881. 8vo.*
- AHRENBURG, H. E. Stämpelbok för svenska Jernverken. Utgifven år 1864. I. Stångjerns- och manufakturverk. II. Masugnar. *Tract. 8vo. vol. 370. Göteborg, 1864. 8vo.*
- AIKIN, A. Illustrations of Arts and Manufactures; being a selection from a series of papers read before the Society of Arts. *Lond. 1841. 8vo.*
- Journal of a tour through North Wales, and a part of Shropshire, with observations in mineralogy. *Lond. 1797. 8vo.*
- A Manual of Mineralogy. 2nd edition. *Lond. 1815. 8vo.*
- Observations on the Valleys and Watercourses of Shropshire, and of parts of the adjacent counties. *Tract. 4to. vol. 12. Lond. 1818. 4to.*
- (From Trans. of the Geological Society.)
- AIKIN, A. and C. R. A dictionary of Chemistry and Mineralogy, *etc.* 2 vols. *Lond. 1807–14. 4to.*
- AINSLEY, T. L. Engineers' manual of the Local Marine Board examinations for certificates. 2nd edition. *South Shields, 1868. 8vo.*
- — 23rd edition. *South Shields, 1886. 8vo.*
- AINSLIE, A. C. Smoking Fires: their cause and cure. *Tract. 8vo. vol. 381. Lond. 1869. 8vo.*
- AINSWORTH, W. F. The Euphrates Valley Railway. *Tract. 8vo. vol. 289. Lond. 1872. 8vo.*
- AIRE and CALDER, *Rivers*. Acts relating to the Rivers Aire and Calder. *Tract. 8vo. vol. 6. Lond. 1774–1820. 8vo.*
- A Bill intituled An Act to confirm a Provisional Order made by the Board of Trade . . . containing the classification of merchandise traffic and the schedule of maximum rates, *etc.* *Lond. 1893. folio.*
- A Bill [as amended by the Joint Committee of Lords and Commons] to confirm a Provisional Order . . . containing the classification of merchandise, *etc.* *Lond. 1893. folio.*

- AIREY, J. Airey's Railway Map of England and Wales. *Lond.* 1890. folio.
- Airey's Railway Map of Scotland. *Lond.* 1888. 8vo.
- Handbook of all the Stations . . . in the United Kingdom, *etc.* 1877–1893. See OLIVER, H., and AIREY, J.
- Railway Junction Diagrams . . . showing the connecting points between all the railways in Great Britain and Ireland, *etc.* 3rd edition. *Lond.* 1872. 4to.
- — 4th edition. *Lond.* 1877. 8vo.
- — 6th edition. *Lond.* 1888. obl. 8vo.
- — Supplement for 1880, 1884, 1885, and 1886. *Lond.* 1880–86. 8vo.
- AIRY, Sir G. B. See ENCKE, J. F. On a new method of computing the Perturbation of Planets. Translated . . . by G. B. Airy. *Tract.* 8vo. vol. 432. 1852. 8vo.
- [For publications of Sir G. B. Airy as Astronomer Royal:] See GREENWICH OBSERVATORY.
- Abstract of a communication on the present state and prospects of the science of Terrestrial Magnetism. *Tract.* 4to. vol. 101. *Lond.* 1850. 4to.
- Account of the Northumberland Equatorial and dome, attached to the Cambridge Observatory. *Camb.* 1844. 4to.
- Account of observations of the total solar eclipse of 1860, July 18, made at Hereña, near Miranda de Ebro; with a notice of the general proceedings of "The Himalaya Expedition for Observation of the Total Solar Eclipse." *Tract.* 8vo. vol. 432. *Lond.* 1860. 8vo.
- Account of Observations of the Transit of Venus, 1874. *Lond.* 1881. 4to.
- Addition to a syllabus of experimental Lectures on Optics. *Tract.* 8vo. vol. 187. [.] 8vo.
- Additional note to the paper on a supposed alteration in the amount of astronomical aberration of light produced by the passage of the light through a considerable thickness of refracting medium. *Tract.* 8vo. vol. 432. *Lond.* 1873. 8vo.
(From the Proceedings of the Royal Society.)
- Address as President at the twenty-first meeting of the British Association. *Tract.* 4to. vol. 102. *Lond.* 1851. 4to.
- Address delivered as President at the anniversary meeting of the Royal Society. 2 pt. *Tract.* 8vo. vol. 431. *Lond.* 1872, 73. 8vo.
- Address delivered on presenting the honorary medal of the Royal Astronomical Society to M. Otto von Struve. *Tract.* 8vo. vol. 431. *Lond.* 1850. 8vo.
- Address delivered on presenting the gold medal of the Royal Astronomical Society to Mr. Charles Rümker. *Tract.* 8vo. vol. 431. 1854. 8vo.

- AIRY, Sir G. B.—*continued*. Annular Eclipse of the Sun, March 14 and 15, 1858. *Tract. 4to. vol. 101.* 1858. 4to.
- Astronomy. *Tract. 8vo. vol. 432.* 1859. 8vo.
- The Atlantic Cable problem. *Tract. 8vo. vol. 431.*
(From the *Nautical Magazine*.) *Lond. 1858. 8vo.*
- The Burial of Sir John Moore. *Tract. 4to. vol. 103.*
(From "The *Athenæum*.") *Lond. 1871. 4to.*
- Change of climate. *Tract. 4to. vol. 103.* *Lond. 1860. 4to.*
(Article in "The *Athenæum*.")
- Comparison of Magnetic Disturbances recorded by the self-registering magnetometers at the Royal Observatory, Greenwich, with magnetic disturbances deduced from the corresponding terrestrial galvanic currents recorded by the self-registering galvanometers of the Royal Observatory. *Tract. 4to. vol. 102.*
1868. 4to.
- The Compass in Iron Ships. *Tract. 4to. vol. 102.*
(From "The *Athenæum*.") *Lond. 1866. 4to.*
- Corrections of the elements of the Moon's Orbit, deduced from the lunar observations made at the Royal Observatory of Greenwich from 1750 to 1851. Being an extension of a preceding memoir entitled "Corrections of the elements of the moon's orbit, deduced from the lunar observations made at the Royal Observatory of Greenwich from 1750 to 1830." *Tract. 4to. vol. 101.*
1859. 4to.
- Corrections to the computed lengths of waves of light published in the *Philosophical Transactions* of the year 1868. *Tract. 4to. vol. 101.* 1871. 4to.
- Decimal Weights and Measures. *Tract. 4to. vol. 103.*
(Article in "The *Athenæum*.") *Lond. 1867. 4to.*
- Diagrams representing the diurnal change in magnitude and direction of the magnetic forces in the horizontal plane at the Royal Observatory, Greenwich, for each month of the several years 1841 to 1876. (Appendix.) [] 4to.
- Effect of Venus on the Moon. *Tract. 8vo. vol. 432.*
Lond. 1847. 8vo.
- Essays on the invasion of Britain by Julius Cæsar; the invasion of Britain by Plautius, and by Claudius Cæsar; the early military policy of the Romans in Britain; the battle of Hastings.
Lond. 1865. 4to.
- Experiments on the directive power of large Steel Magnets, of Bars of Magnetized Soft Iron, and of Galvanic Coils, in their action on external small magnets. With Appendix, containing an investigation of the attraction of a galvanic coil on a small magnetic mass: by James Stuart. *Tract. 4to. vol. 102.*
1872. 4to.

- AIRY, Sir G. B.—*continued.* Explanation of a Projection by balance of errors for Maps applying to a very large extent of the earth's surface, and comparison of this projection with other projections. *Tract. 8vo. vol. 431.* [Lond.] 1861. 8vo.
(From the Philosophical Magazine.)
- First analysis of one hundred and seventy-seven Magnetic Storms, registered by the magnetic instruments in the Royal Observatory, Greenwich, from 1841 to 1857. *Tract. 4to. vol. 45.*
(From the Phil. Trans.) [Lond. 1863.] 4to.
- Gravitation. [Article from "The Penny Cyclopædia."] *Tract. 4to. vol. 102.* Lond. 1838. 4to.
- Instructions and Chart for observations of Mars in right ascension at the opposition of 1860 for obtaining the measure of the sun's distance. *Tract. 8vo. vol. 432.* Lond. 1858. 8vo.
- Investigation of the Law of the progress of accuracy in the usual process for forming a plane surface. *Tract. 8vo. vol. 431.*
(From the "Philosophical Magazine.") [Lond.] 1871. 8vo.
- Iron Ships. The "Royal Charter." *Tract. 4to. vol. 102.*
(From "The Athenæum.") Lond. 1859. 4to.
- The Land of Goshen. *Tract. 4to. vol. 103.* Lond. 1865. 4to.
(From "The Athenæum.")
- Lecture on the determination of the Longitude of the Observatory of Cambridge by means of galvanic signals. *Tract. 8vo. vol. 432.* [Lond.] 1853. 8vo.
(From the Monthly Notices of the Royal Astronomical Society.)
- Lecture on the late Solar Eclipse. *Tract. 4to. vol. 101.*
(Supplement to the "London Review.") Lond. 1861. 4to.
- Lecture on the Pendulum Experiments at Harton Pit. *Tract. 8vo. vol. 103.* Lond. 1855. 8vo.
- Magnetical observations in the Britannia and Conway tubular iron bridges. *Tract. 4to. vol. 102.* 1872. 4to.
- Magnetism of Ships, especially of iron ships, and correction of the magnetic disturbing forces on the ship's compass. *Tract. 4to. vol. 102.* (From "The Athenæum.") Lond. 1865. 4to.
- Mathematical tracts on the Lunar and Planetary Theories, the figure of the earth, precession and nutation, the calculus of variations, and the undulatory theory of optics. 2nd edition. *Cambridge & Lond. 1831. 8vo.*
- Memoir on the places of Julius Cæsar's departure from Gaul for the invasion of Britain, and the place of his landing in Britain; with an appendix on the battle of Hastings. *Tract. 8vo. vol. 431.* 1852. 8vo.
- Memoranda for the Commission appointed to consider the Tay Bridge casualty. *Tract. 4to. vol. 103.* 1880. 4to.
- Monthly means of the highest and lowest diurnal Temperatures of the Water of the Thames, and comparison with the corresponding temperatures of the air at the Royal Observatory, Greenwich. *Tract. 8vo. vol. 431.* Lond. 1882. 8vo.
(From the Proceedings of the Royal Society.)

- AIRY, Sir G. B.—*continued*. A new method of clearing the Lunar Distance. *Tract. 8vo. vol. 421.* *Lond.* 1881. 8vo.
- Note on an extension of the comparison of Magnetic Disturbances with magnetic effects inferred from observed terrestrial galvanic currents; and discussion of the magnetic effects inferred from galvanic currents on days of tranquil magnetism. *Tract. 4to. vol. 101.* 1870. 4to.
- Note on Oltmann's calculation of the Eclipse of Thales. *Tract. 4to. vol. 101.* 1858. 4to.
- Notes for the Committee on Weights and Measures, 1862. *Tract. 4to. vol. 103.* 1862. 4to.
- Notes on methods of reduction applicable to the Indian Survey. *Tract. 8vo. vol. 431.* *Lond.* 1864. 8vo.
- Observations of the total Solar Eclipse of 1842. *Tract. 4to. vol. 101.* *Lond.* 1842. 4to.
- On a change in the state of an Eye affected with a malformation. *Tract. 4to. vol. 102.* *Cambridge,* 1846. 4to.
(From the Transactions of the Cambridge Philosophical Society.)
- On a correction requisite to be applied to the length of a Pendulum consisting of a ball suspended by a fine wire. *Tract. 4to. vol. 102.* *Cambridge,* 1830. 4to.
(From the Transactions of the Cambridge Philosophical Society.)
- On a difficulty in the Problem of Sound. *Tract. 8vo. vol. 431.* (From the Philosophical Magazine.) [*Lond.*] 1849. 8vo.
- On a new construction of the Going Fusee. *Tract. 4to. vol. 36.* *Cambridge,* 1841. 4to.
(From Transactions of the Cambridge Philosophical Society.)
- On a method of determining the mass of the Moon from transit observations of Venus near her inferior conjunction. *Tract. 4to. vol. 101.* 1829. 4to.
- On a method of Slewing a Ship without the aid of the Rudder. *Tract. 4to. vol. 102.* *Lond.* 1864. 4to.
- On a new construction of the divided eye-glass double-image Micrometer. *Tract. 8vo. vol. 431.* *Lond.* 1845. 8vo.
- On a problem of Geodesy. *Tract. 8vo. vol. 431.* 1850. 8vo.
- On a proposed new method of treating the Lunar Theory. *Tract. 8vo. vol. 432.* [*Lond.*] 1874. 8vo.
(From the Monthly Notices of the Royal Astronomical Society.)
- On a supposed Periodicity in the elements of Terrestrial Magnetism. *Tract. 8vo. vol. 431.* [*Lond.*] 1872. 8vo.
(From the Proceedings of the Royal Society.)
- On a systematic interruption in the order of numerical values of Vulgar Fractions, when arranged in a series of consecutive magnitudes. *Tract. 8vo. vol. 431.* [*Lond.*] 1881. 8vo.
(From the Philosophical Magazine.)
- On Caesar's place of landing in Britain. *Tract. 4to. vol. 103.* (From "The Athenæum.") *Lond.* 1851. 4to.

AIRY, Sir G. B.—*continued*. On certain conditions under which a Perpetual Motion is possible. *Tract. 4to. vol. 102.*

Cambridge, 1830. 4to.

(From the Transactions of the Cambridge Philosophical Society.)

— On Hemioptics. *Tract. 8vo. vol. 431.* [Lond.] 1865. 8vo.

(From the Philosophical Magazine.)

— On Instruments adapted to the measure of small meridional Zenith Distances. *Tract. 8vo. vol. 432.* Lond. 1849. 8vo.

— On Laplace's investigation of the Attraction of Spheroids differing little from a sphere. *Tract. 4to. vol. 15. Cambridge, 1826. 4to.*

(From the Transactions of the Cambridge Philosophical Society.)

— On Magnetical Errors, compensations, and corrections; with special reference to iron ships and their compasses. *Tract. 4to. vol. 102.* (From "The Athenæum.") Lond. 1865. 4to.

— On Sound and Atmospheric Vibrations, with the mathematical elements of music. Lond. & Cambridge, 1868. 8vo.

— On the Algebraical and Numerical Theory of Errors of Observations and the combination of observations. 3rd edition, revised. Lond. 1879. 8vo.

— On the apparent Projection of Stars upon the Moon's disc in Occultations. *Tract. 4to. vol. 101.* 1859. 4to.

— On the calculation of Newton's experiments on Diffraction. *Tract. 4to. vol. 102.* Cambridge, 1833. 4to.

(From the Transactions of the Cambridge Philosophical Society.)

— On the calculation of the Perturbations of the small Planets and the Comets of short period. *Tract. 8vo. vol. 432.* 1834. 8vo.

— On the campaign of Aulus Plautius in Britain. *Tract. 4to. vol. 103.* (From "The Athenæum.") Lond. 1866. 4to.

— On the Claudian or Plautian invasion of Britain. *Tract. 4to. vol. 103.* (From "The Athenæum.") Lond. 1860. 4to.

— On the construction and use of a Scale for gauging Cylindrical Measures of Capacity. *Tract. 8vo. vol. 431.* [Lond.] 1879. 8vo.

(From the Philosophical Magazine.)

— On the determination of Heights from Barometer readings. *Tract. 8vo. vol. 431.* [Lond.] 1867. 8vo.

(From the Proceedings of the Meteorological Society.)

— On the determination of the Orbits of Comets, from observations. *Tract. 4to. vol. 101.* 1839. 4to.

— On the determination of the probable stability of an Azimuthal Circle, by observations of stars and of a permanent collimator. *Tract. 8vo. vol. 432.* Lond. 1851. 8vo.

— On the difference of Longitude between the Observatories of Brussels and Greenwich, as determined by galvanic signals. *Tract. 4to. vol. 101.* Lond. 1855. 4to.

(From the Memoirs of the Royal Astronomical Society.)

— On the difference in the Magnetic Properties of hot-rolled and cold-rolled Malleable Iron, as regards the power of receiving and retaining induced magnetism of super-permanent character. *Tract. 4to. vol. 45.* [Lond. 1862.] 4to.

(From the Philosophical Transactions.)

- AIRY, Sir G. B.—*continued*. On the Diffraction of an Annular Aperture. *Tract. 8vo. vol. 432.* [Lond.] 1841. 8vo.
(From the Philosophical Magazine.)
- On the Diffraction of an Object-glass with circular aperture. *Tract. 4to. vol. 102.* Cambridge, 1835. 4to.
(From the Transactions of the Cambridge Philosophical Society.)
- On the direction of the Joints in the faces of Oblique arches. *Tract. 8vo. vol. 431.* [Lond.] 1862. 8vo.
(From the Philosophical Magazine.)
- On the discordance between the results for Zenith-Distances obtained by direct observation, and those obtained by observation by reflection from the surface of quicksilver. *Tract. 4to. vol. 101.* 1863. 4to.
- On the diurnal and annual inequalities of Terrestrial Magnetism, etc. *Tract. 4to. vol. 63.* [Lond.] 1868. 4to.
(From the Philosophical Transactions.)
- On the diurnal inequalities of Terrestrial Magnetism, as deduced from observations made at the Royal Observatory, Greenwich, from 1841 to 1857. *Tract. 4to. vol. 45.* [Lond. 1863.] 4to.
(From the Philosophical Transactions.)
- On the eclipse of Agathocles, the eclipse at Larissa, and the eclipse of Thales: with an appendix on the eclipse at Stiklastad. *Tract. 4to. vol. 101.* 1857. 4to.
- On the equations applying to Light under the action of Magnetism. *Tract. 8vo. vol. 432.* 1846. 8vo.
- On the factorial resolution of the trinomial. *Tract. 4to. vol. 101.* Cambridge, 1869. 4to.
(From the Transactions of the Cambridge Philosophical Society.)
- On the great Solar Eclipse of July 18, 1860. *Tract. 4to. vol. 101.* (From "The Athenæum.") Lond. 1861. 4to.
- On the inferences for the value of mean solar parallax and other elements deducible from the telescopic observations of the transit of Venus, 1874, December 8, which were made in the British expedition for the observation of that transit. *Tract. 8vo. vol. 432.* [Lond.] 1877. 8vo.
(From the Monthly Notices of the Royal Astronomical Society.)
- On the invasions of Britain by Julius Cæsar. *Tract. 4to. vol. 103.* (From "The Athenæum.") Lond. 1863. 4to.
- On the laws of the rise and fall of the Tide in the river Thames. *Tract. 4to. vol. 102.* Lond. 1842. 4to.
(From the Philosophical Transactions.)
- On the locality of the Roman Gesoriacum. *Tract. 4to. vol. 103.* (From "The Athenæum.") Lond. 1870. 4to.
- On the means which will be available for correcting the measure of the Sun's distance, in the next twenty-five years. *Tract. 8vo. vol. 432.* Lond. 1857. 8vo.
- On the mechanical conditions of the Deposit of a Submarine Cable. *Tract. 8vo. vol. 119.* [1858.] 8vo.
(From the Philosophical Magazine.)

AIRY, Sir G. B.—*continued*. On the method of observing and recording Transits. *Tract. 8vo. vol. 432.* *Lond.* 1849. 8vo.

— On the method to be used in reducing the observations of the transit of Venus, 1874, December 8. *Tract. 8vo. vol. 432.* 1875. 8vo.

— On the movement of the Solar System in space. *Tract. 4to. vol. 101.* 1859. 4to.

— On the nature of the Light in the two rays produced by the double Refraction of Quartz. *Tract. 4to. vol. 101.* *Cambridge,* 1831. 4to.

(From the Transactions of the Cambridge Philosophical Society.)

— On the numerical expression of the destructive energy in the explosions of Steam-boilers, and on its comparison with the destructive energy of gunpowder. *Tract. 8vo. vol. 139.* [1863.] 8vo.

(From the Philosophical Magazine.)

— On the Pendulum-experiments lately made in the Harton Colliery for ascertaining the mean density of the Earth. *Tract. 8vo. vol. 432.* 1855. 8vo.

— On the phenomena of Newton's Rings when formed between two transparent substances of different refractive powers. *Tract. 8vo. vol. 101.* *Cambridge,* 1832. 8vo.

(From the Transactions of the Cambridge Philosophical Society.)

— On the position of the Ecliptic, as inferred from observations with the Cambridge transit and mural circle made in the year 1834. *Tract. 4to. vol. 101.* 1835. 4to.

— On the preparations to be made for observation of the Transit of Venus, 1882, December 6. *Tract. 8vo. vol. 432.* *Lond.* 1880. 8vo.

(From the Monthly Notices of the Royal Astronomical Society.)

— On the probable condition of the Interior of the Earth. *Tract. 8vo. vol. 432.* 1878. 8vo.

(From the Transactions of the Cumberland Association.)

— On the Regulator of the Clock-work for effecting uniform movement of Equatorials: and supplement. *Tract. 4to. vol. 102.* 1840. 4to.

— On the results of recent calculations on the eclipse of Thales and eclipses connected with it. *Tract. 8vo. vol. 432.* 1853. 8vo.

— On the Strains in the interior of Beams. *Tract. 4to. vol. 48.* [Lond.] 1862. 4to.

(From the Philosophical Transactions for 1862.)

— On the Strains in the interior of Beams and Tubular Bridges. *Tract. 4to. vol. 103.* *Lond.* 1862. 4to.

(From "The Athenæum.")

— On the substitution of methods founded on ordinary Geometry for methods based on the general doctrine of Proportions in the treatment of some geometrical problems. *Tract. 4to. vol. 102.* *Cambridge,* 1858. 4to.

- AIRY, Sir G. B.—*continued.* On the supposed possible effect of Friction in the Tides, in influencing the apparent acceleration of the moon's mean motion in longitude, and on a method of computing interpolations to the second order without changes of algebraical sign. *Tract. 8vo. vol. 432. Lond. 1866. 8vo.*
- On the theoretical explanation of an apparent new Polarity of Light. *Tract. 4to. vol. 101. Lond. 1840. 4to.*
(From the Philosophical Transactions.)
- On the theoretical value of the Acceleration of the Moon's mean motion in longitude produced by the change of eccentricity of the Earth's orbit. *Tract. 8vo. vol. 432. Lond. 1880. 8vo.*
(From the Monthly Notices of the Royal Astronomical Society.)
- On the Tides at Malta. *Tract. 4to. vol. 102. Lond. 1878. 4to.*
(From the Philosophical Transactions.)
- On the Topography of the "Lady of the Lake." *Tract. 8vo. vol. 431. Lond. 1873. 8vo.*
- On the total Solar Eclipse of 1851, July 28. *Tract. 8vo. vol. 432. 1851. 8vo.*
- On the Transit of Venus, 1882, December 6. *Tract. 8vo. vol. 432. Lond. 1864. 8vo.*
(From the Monthly Notices of the Royal Astronomical Society.)
- On the use of Silvered Glass for the mirrors of Reflecting Telescopes. *Tract. 4to. vol. 102. Cambridge, 1824. 4to.*
(From the Transactions of the Cambridge Philosophical Society.)
- On the Vibration of a Free Pendulum in an Oval differing little from a straight line. *Tract. 4to. vol. 102. 1851. 4to.*
- On the Wave-lengths corresponding to Kirchhoff's lines in the Solar Spectrum. *Tract. 4to. vol. 101. 1867. 4to.*
- On the weights to be given to the separate results for Terrestrial Longitudes determined by the observation of transits of the moon and fixed stars. *Tract. 4to. vol. 101. 1850. 4to.*
- Preparations for the observation of the Transit of Venus, 1874, December 8–9. *Tract. 8vo. vol. 432. [Lond.] 1874. 8vo.*
(From the Monthly Notices of the Royal Astronomical Society.)
- Proposed devotion of an Observatory to observation of the phenomena of Jupiter's Satellites. *Tract. 8vo. vol. 432. Lond. 1872. 8vo.*
(From the Monthly Notices of the Royal Astronomical Society.)
- Reduction of the observations of Halley's Comet made at the Cambridge Observatory in the years 1835 and 1836. *Tract. 4to. vol. 101. 1847. 4to.*
- Remarks on a correction of the Solar Tables required by Mr. South's observations. *Tract. 4to. vol. 101. Lond. 1827. 4to.*
(From the Philosophical Transactions.)
- Remarks on Dr. Faraday's paper on Ray-vibrations. *Tract. 8vo. vol. 432. 1846. 8vo.*

AIRY, Sir G. B.—continued. Remarks on Professor Challis's reply to Mr. Airy's objections to the investigation of the resistance of the atmosphere to an oscillating sphere. *Tract. 8vo. vol. 431.*

(From the *Philosophical Magazine.*) [*Lond.*] 1841. 8vo.

— Remarks on Professor Challis's theoretical determination of the Velocity of Sound. *Tract. 8vo. vol. 431.* 1848. 8vo.

— Report on Steam-boiler Explosions. *Tract. 8vo. vol. 431.* 1863. 8vo.

— Results deduced from the measures of terrestrial Magnetic Force in the horizontal plane at the Royal Observatory, Greenwich, from 1841 to 1876. *Tract. 4to. vol. 102.* *Lond.* 1885. 4to.

(From the *Philosophical Transactions.*)

— Science and art. *Tract. 4to. vol. 103.* *Lond.* 1874. 4to.

(From "The *Athenæum.*")

— Six lectures on Astronomy, delivered at . . . Ipswich. *Lond.* 1849. 8vo.

— [Syllabus of preceding.] *Tract. 8vo. vol. 432.* *Ipswich,* 1848. 8vo.

— Steam Navigation, *etc.* *Lond.* 1858. folio.

— Suggestion of a proof of the theorem that every Algebraic Equation has a root. (Supplement.) *Tract. 4to. vol. 102.*

Cambridge, 1859–60. 4to

(From the *Transactions of the Cambridge Philosophical Society.*)

— Supplement to a paper on the Intensity of Light in the neighbourhood of a Caustic. *Tract. 4to. vol. 101.* *Cambridge,* 1848. 4to.

(From the *Transactions of the Cambridge Philosophical Society.*)

— Syllabus of a course of three lectures on "Magnetical errors, compensations, and corrections, with special reference to iron ships and their compasses." *Tract. 8vo. vol. 431.*

Lond. 1864. 8vo.

— Syphon Barometers. *Tract. 4to. vol. 103.* *Lond.* 1861. 4to.

(From "The *Athenæum.*")

— The Transits of Venus, 1874 and 1882. On the preparatory arrangements for the observation of the transits. *Tract. 8vo. vol. 432.* *Lond.* [1880 ?] 8vo.

(From the *Monthly Notices of the Royal Astronomical Society.*)

— Trigonometry. On the figure of the Earth. Tides and waves. (From the *Encyclopædia Metropolitana.*) [1850 ?] 4to.

— University of Cambridge. Syllabus of lectures on Magnetism. 1869. Easter term. *Tract. 8vo. vol. 431.*

Lond. & Cambridge, 1869. 8vo.

AIRY, W. Iron Arches: the practical theory of the continuous arch. *Tract. 8vo. vol. 206.* *Lond.* 1870. 8vo.

— The Scoop-Wheel: remarks on the construction of the course, and designs for a new and improved scoop-wheel. *Tract. 4to. vol. 63.* *Lond.* 1870. 4to.

— The Spiral Pump applied as a force pump, a suction pump, or a mercury pump. With remarks on the theory of the machine. *Tract. 8vo. vol. 195.* *Lond.* 1869. 8vo.

- AITKEN, R. Lectures. Canals, Reservoir Dams, etc. Delivered at . . . Chatham. *Chatham*, 1871-72. folio.
- Main-drainage of Bombay. Preliminary report. *Tract.* 8vo. vol. 156. *Bombay*, 1866. 8vo.
- Papers relating to a proposal for the establishment of a Harbour and Dock trust, and for the construction of a wet dock in Moody Bay. *Tract.* 8vo. vol. 200. *Bombay*, 1867. 8vo.
- Proposed Metric System for British India. *Tract.* 8vo. vol. 200. *Bombay*, 1867. 8vo.
- Rapport sur l'installation du port d'Anvers. *Tract.* folio. vol. 18. *Lond.* 1874. folio.
- Report on a proposed Road through the reclamations on the harbour side of the Island of Bombay. *Tract.* 8vo. vol. 200. *Bombay*, 1866. 8vo.
- Report on the Extension of the Bombay Waterworks. *Bombay*, 1868. folio.
- Report on the Main Drainage of Bombay. *Tract.* 8vo. vol. 200. *Bombay*, 1866. 8vo.
- [Another edition.] *Tract.* 8vo. vol. 200. *Bombay*, 1867. 8vo.
- Report on the Vyrnwy masonry dam. *Tract.* 8vo. vol. 417. *Liverpool*, 1886. 8vo.
- AITON, W. A treatise on the origin, qualities, and cultivation of Moss-earth. *Air*, 1811. 8vo.
- AIX.—*K. technische Hochschule.* Katalog der Bibliothek. Erster Nachtrag. *Aachen*, 1879. 8vo.
- Programm . . . für das Studienjahr 1870-71, (1871-72, &c.) *Aachen* [1870, etc.] 8vo.
(1873-74, 1880-81 and 1881-82 wanting.)
- *Königliche Rheinisch-Westphälische polytechnische Schule.* Die Eröffnungs-Feier . . . Ein Gedenkblatt für die Festgenossen, etc. *Aachen*, 1870. 8vo.
- Programm für den Cursus 1870-73, 1874-80. 9 vols. *Aachen*, 1870-79. 8vo.
- Die chemischen Laboratorien. *Aachen*, 1879. 8vo.
- Vorträge über Eisenbahnbau. *Aachen*, 1875. folio.
- AJRAGHI, F. Cavo diramatore delle acque del canale Cavour a beneficio della regione compresa fra il torrente Agogna e il fiume Ticino. *Tract.* 8vo. vol. 223. *Milano*, [1872]. 8vo.
- AKADEMIE DER WISSENSCHAFTEN [Austria]. Denkschriften. Vols. 35, etc. *Wien*, 1877, etc. 4to.
- Feierliche Sitzung der Akademie, 1883, 1884. *Tract.* 8vo. vol. 472. *Wien*, 1883, 84. 8vo.
- Sitzungsberichte, mathematisch-naturwissenschaftliche Classe. vol. 83 (84, etc.). *Wien*, 1881. etc. 8vo.
- (Abtheilung I, relating to Mineralogy, Botany, Zoology, Geology and Palaeontology; and Abtheilung II, relating to Mathematics, Physics, Chemistry, Mechanics, Meteorology and Astronomy, only. Since 1888 called respectively Abtheilung IIA and IIB.)

AKADEMIE DER WISSENSCHAFTEN [Bavaria]. Abhandlungen der mathematisch-physikalischen Classe. Vol. 1, (2, etc.). München, 1832, etc. 4to

— Almanach for 1871, 1875, 1878. München, 1871-78.

— Bulletin. Tract. 4to. München, 1849-51. 4to.

— Sitzungsberichte. München, 1860, etc. 8vo.

(1878 imperfect.)

AKADEMIE DER WISSENSCHAFTEN [Prussia]. Monatsberichte. Berlin, 1877-81. 8vo.

[Continued as:]

— Sitzungsberichte. Berlin, 1882, etc. 8vo.

ÅKERMAN, R. Betingelser för ändamålsenlig framställning af tackjernsgjutgoods samt nya användningar af kiseljern. Tract. 8vo. vol. 480. Stockholm, 1889. 8vo.

— Bidrag till utredning af frågan om generering utaf bränslegas. Stockholm, 1891. 8vo.

— Das Rosten der Eisenerze. Tract. 8vo. vol. 324. Leipzig, 1880. 8vo.

— Om jernmalms rostning. Tract. 8vo. vol. 315. Stockholm, 1879. 8vo.

— Om syrsatt jerns reduktion med koloxid. Tract. 8vo. vol. 466. Stockholm, 1882. 8vo.

— On the state of the Iron Manufacture in Sweden at the beginning of 1873. Tract. 4to. vol. 79. Stockholm, 1873. 4to.

— Ueber den Standpunkt der Eisenfabrikation in Schweden, zu Anfang des Jahres, 1873. Tract. 8vo. vol. 253. Stockholm, 1873. 8vo.

ÅKERMAN, R., AND SÄRNSTRÖM, C. G. Om askhalter och fosforprocentor i trä samt deraf beredda kol. Tract. 8vo. vol. 480. Stockholm, 1888. 8vo.

ALABAMA. The Hill Country of Alabama, U.S.A., or the Land of Rest. Tract. 8vo. vol. 310. Lond. 1878. 8vo.

ALABAMA GREAT SOUTHERN RAILWAY. The Alabama Great Southern Railway Company's Act, 1888. Lond. 1888. folio.

ALBANY, N.Y. New Capitol Commissioners. Annual Reports, 1869-70. Albany, 1870-71. 8vo.

ALBERT BRIDGE, Chelsea. Detailed drawings. [] folio.

— Albert and Battersea Bridges Arbitration Proceedings. [No. 40, vol. 2 of the Land Agent's Record.] Tract. folio. vol. 27. Lond. 1879. folio.

ALBERT HALL, London. Programme of the Opening: with a history of the origin of the Hall, etc. Lond. 1871. 8vo.

- ALBERT VICTOR, *Duke of Clarence*, and GEORGE, *Duke of York*.
The Cruise of Her Majesty's Ship "Bacchante," 1879-1882.
With additions by John N. Dalton. 2 vol. Lond. 1886. 8vo.
- ALDBOROUGH. Aldborough Harbour of Refuge and Improvement
Bill. Report made by the inspector. Lond. 1852. folio.
— Statement in support of the Bill. Aldborough, 1852. folio.
- ALDERNEY. Report from the Select Committee of the House of
Lords on the Harbour and Fortifications of Alderney.
Lond. 1872. folio.
- ALDERSHOT. Report on the Sewage of Aldershot. By R. Raw-
linson. Lond. 1870. folio.
- ALDERSON, M. A. An Essay on the nature and application of
Steam, with an historical notice of the Steam-Engine.
Lond. 1834. 8vo.
- ALDIS, C. J. B. General report on the sanitary condition of the
Belgrave sub-district, parish of St. George, Hanover Square, and
on the quality of the waters used therein. Tract. 8vo. vol. 247.
Lond. 1856. 8vo.
- ALDRICH, H. Elementa architecturæ civilis ad Vitruvii veterumque
disciplinam, et recentiorum præsertim A. Palladii exempla . . .
concinnata. [With an English translation and introduction by
P. Smyth.] Oxonii, 1789. 8vo.
- ALEMBERT, J. L. d'. Essai d'une nouvelle théorie de la résistance
des fluides. Tome 4. Paris, 1752. 4to.
— Traité de l'équilibre et du mouvement des fluides, pour servir de
suite au traité de dynamique. Part 5. Paris, 1770. 4to.
- ALESSANDRIA. Fortress of Alessandria, in Italy. [Translated
extracts from French works.] Tract. 8vo. vol. 335. [] 8vo.
(Lithographed.)
- ALEXANDER, A. L. D. Pedro I. Railway—Estudos preliminares.
Resposta ao parecer do Chefe da Commissão Fiscal. Tract. folio.
vol. 37. Rio de Janeiro, 1885. folio.
- ALEXANDER, J. H. An inquiry into the English system of Weights
and Measures. Tract. 8vo. vol. 119. Oxford, 1857. 8vo.
— International Coinage for Great Britain and the United States.
Tract. 8vo. vol. 119. Oxford, 1857. 8vo.
— Universal dictionary of Weights and Measures, ancient and
modern; reduced to the standards of the United States of
America. Baltimore, 1850. 8vo.
- ALEXANDER, T. Analysis and comparative advantages of the
Fink, Bollman and Warren systems of Trussing, after the French
of Dr. M. Levy. Tract. 8vo. vol. 331. Tokyo, 1880. 8vo.
— Analytical theory of Bending Moments produced by travelling
load systems. Tract. 8vo. vol. 313. Tokyo, 1879. 8vo.
— On two-nosed Catenaries and their application to the design of
segmental arches. Tract. folio. vol. 44. Dublin, 1888. folio.

(From the Transactions of the Royal Irish Academy.)

- ALEXANDER, T., and THOMSON, A. W. The Alexander-Thomson Moment Delineator, and its application to maximum bending moments due to moving loads. *Tract. 8vo. vol. 489.*
Glasgow, 1890. 8vo.
- Elementary Applied Mechanics. 2 pt. *Lond. 1880, 83. 8vo.*
- ALEXANDER, W. Plan and description of the original Electro-magnetic Telegraph, with prefatory note to the Royal Commissioners of the Exhibition. *Tract. 8vo. vol. 97. Lond. 1851. 8vo.*
- ALEXANDRE, P. Note relative à la mesure de l'évaporation de l'eau. *Tract. 8vo. vol. 314. Paris, 1879. 8vo.*
- Note sur le pont tournant du Pollet. *Tract. 8vo. vol. 510. Paris, 1891. 8vo.*
- Nouvelle distribution des eaux de Dieppe. *Paris, 1884. 8vo.*
- Port de Dieppe. Mémoire sur la construction de l'écluse d'aval du bassin de mi-marée. *Paris, 1887. 8vo.*
- Recherches expérimentales sur les mortiers hydrauliques. *Paris, 1890. 8vo.*
- ALEXANDRIA. Administration des chemins de fer, des télégraphes et du port d'Alexandrie. *Tract. 4to. vol. Alexandrie, 1881. 4to.*
- ALEXANDROW, A. A complete English-Russian Dictionary. *St. Petersburg, 1879. 8vo.*
- A complete Russian-English Dictionary. *St. Petersburg, 1885. 8vo.*
- ALFONSO. *See ALPHONSO.*
- ALGER, P. R. On the Tension of Winding Wire Guns. *Tract. 8vo. vol. 464. [1880?] 8vo.*
- ALGESIRAS, *Steamer.* Rapports des commissions chargées de procéder aux expériences de recette des appareils à vapeur du vaisseau l'Algesiras et de la frégate l'Isly. *Tract. 4to. vol. 48. (Lithographed.) Toulon, 1857. 4to.*
- ALGLAVE, E., and BOULARD, J. La lumière électrique, son histoire, sa production, et son emploi. *Paris, 1882. 8vo.*
- ALGOA BAY. Report of the Commissioners for Improving the Port and Harbour of Algoa Bay, 1876-79. *1877-80. folio.*
- ALLAN, A. Hydrostatic Cabins for ships to prevent Sea-Sickness. Hydrostatic batteries for coast defence; hydrostatic batteries to give a steady gun-deck at sea. *Tract. folio. vol. 19. [1874?] folio.*
- ALLAN, G. [Letter on the subject of Silver Currency.] *Tract. folio. vol. Lond. 1892. folio.*
- ALLAN, W. Theory of Arches. *New York, 1874. 12mo.*
- ALLAN LINE. Illustrated tourists' guide to Canada and the United States. *Tract. 8vo. vol. 396. [1881?] 8vo.*

- ALLARD, E. Comparaison de quelques dépenses relatives au service des phares en France, aux Etats-Unis et en Angleterre. *Tract. 8vo. vol. 424. Paris, 1880. 8vo.*
- Influence du vent sur les phénomènes météorologiques. *Tract. 4to. vol. 99. Paris, 1883. 4to.*
- Mémoire sur les phares électriques, comprenant le programme de l'éclairage électrique des côtes de France complété par des signaux sonores à vapeur. *Paris, 1881. 4to.*
- Mémoire sur la portée des sons et sur les caractères à attribuer aux signaux sonores. *Tract. 4to. vol. 91. Paris, 1882. 4to.*
- Note sur les bouées sonores et les bouées lumineuses. *Tract. 8vo. vol. 424. Paris, 1882. 8vo.*
- Note sur quelques objections relatives à l'emploi de la lumière électrique dans les phares. *Tract. 8vo. vol. 424. Paris, 1882. 8vo.*
- Portée des sons dans l'air. *Tract. 8vo. vol. 99. Paris, 1882. 8vo.*
- Renseignements météorologiques sur le littoral de la France. *Tract. 4to. vol. 90. Paris, 1882. 4to.*
- Sur la transparence des flammes et de l'atmosphère et sur la visibilité des feux scintillants. *Tract. 4to. vol. 99. Paris, 1875. 4to.*
- See REYNAUD, L. Les travaux publics de la France. [tom. 5. Phares et balises. Par E. Allard.] 1883.
- ALLARD, E., AND OTHERS. Expériences faites à l'exposition d'électricité. *Tract. 8vo. vol. 429. Paris, 1883. 8vo.*
- Expériences faites sur une pile secondaire de M. Faure. *Tract. 4to. vol. 99. Paris, 1882. 4to.*
- Résultats des expériences faites à l'exposition d'électricité sur les machines et les régulateurs à courants alternatifs. *Tract. 4to. vol. 99. Paris, 1882. 4to.*
- Résultats des expériences faites à l'exposition d'électricité sur les machines et les régulateurs à courant continu. *Tract. 4to. vol. 99. Paris, 1882. 4to.*
- Résultats des expériences faites à l'exposition d'électricité sur les lampes à incandescence. *Tract. 4to. vol. 99. Paris, 1882. 4to.*
- Résultats des expériences faites sur les bougies électriques à l'exposition d'électricité. *Tract. 4to. vol. 99. Paris, 1882. 4to.*
(The five preceding from the Comptes rendus des séances de l'Académie des Sciences.)
- ALLEN, Lough. Report from the Directors General of Inland Navigation in Ireland on the Lough Allen to Shannon Navigation. *Lond. 1818. folio.*
- ALLEN, C. A., LOCKE, A. W., and ELLIS, J. W. Report on the abolition of Grade Crossings in the City of Worcester. *Worcester, Mass., 1892. 8vo.*
- ALLEN, C. B. Cottage-building; and hints for improved dwellings for the labouring classes. 6th edition. *Lond. 1867. 12mo.*

ALLEN, E. E. On the commercial Economy of working Steam expansively in Marine Engines: with description of a new double expansive marine-engine. *Tract. 8vo. vol. 111.*

Birmingham, 1855. 8vo.

(From the Proceedings of the Institution of Mechanical Engineers.)

— Proposed City Union Railways, and outer and inner circle completion. *Tract. folio. vol. Lond. 1878. folio.*

ALLEN, H. The Sun and Planet instrument. [By Horatio Allen?] 1875. *See ANONYMOUS.*

ALLEN, J. A. Synonymatic list of the American Sciuri, or arboreal Squirrels. *Tract. 8vo. vol. 474. Washington, 1878. 8vo.*

ALLEN, J. P. Practical Building Construction, etc. *Lond. 1893. 8vo.*

ALLEN, J. R. Theory and practice in the design and construction of Dock Walls. *Lond. 1876. 4to.*

ALLEN, R. C., SNOW, W. P. and INGLEFIELD, E. A. Remarks on Baffin Bay. *Tract. 8vo. vol. 113. Lond. 1853. 8vo.*

ALLEN, T. Iron Hulls for Western River Steamboats. *Tract. 8vo. vol. 485. [New York.] 1874. 8vo.*

(From the Transactions of the American Society of Civil Engineers.)

— Ship's Compasses. *Tract. 8vo. vol. 136. 1855. 8vo.*

— Systems of inland and submarine Telegraphy. *Tract. 8vo. vol. 119. Lond. 1858. 8vo.*

ALLEN, W. Colonies at home; or, means for rendering the industrious labourer independent of parish relief, and for providing for the poor population of Ireland by the cultivation of the soil. *Tract. 8vo. vol. 63. Lindfield, 1832. 8vo.*

— The substance of an Address to the students of Guy's Hospital, at the close of the lectures on Experimental Philosophy. *Tract. 8vo. vol. 69. Lond. 1826. 8vo.*

ALLEN, W. F., Traveller's official guide of the Railway and Steam Navigation lines in the United States and Canada. *New York, 1886, etc. 8vo.*

ALLEN, W., and PEPPYS, W. H. On the changes produced on Atmospheric Air and Oxygen Gas by respiration. *Tract. 4to. vol. 19. (From the Philosophical Transactions.) Lond. 1808. 4to.*

— On the quantity of Carbon in Carbonic Acid, and on the nature of the Diamond. *Tract. 4to. vol. 19. Lond. 1807. 4to. (From the Philosophical Transactions.)*

ALLEN, W. H., and Co. Allen's Map of India. *Lond. 1842. 8vo.*

ALLIEVI, L. La Metropolitana di Roma. *Tract. 4to. vol. 93. Roma, 1855. 4to.*

— Equilibrio interno delle pile metalliche secondo le leggi della deformazione elastica. *Roma, 1882. 8vo.*

ALLINGHAM, W. The Duties of Officers and Seamen in the British Mercantile Marine. [Papers of the Shipmaster's Soc., No. 21.] *Lond. 1892. 8vo.*

- ALLINGHAM, W. Mercantile Marine Education. [Papers of the Shipmasters' Soc., No. 28.] *Lond. 1893. 8vo.*
- Ocean Meteorology. [Papers of the Shipmasters' Soc., No. 16.] *Lond. 1891. 8vo.*
- ALLNUTT, H. Wood Pavement as carried out on Kensington High Road, Chelsea, etc. *Tract. 8vo. vol. 351. [1880.] 8vo.*
- ALLNUTT, Z. Useful and correct accounts of the Navigation of the Rivers and Canals west of London. Second edition. *Tract. 8vo. vol. 87. Henley, [1815?] 8vo.*
- ALLSOP, F. C. Practical Electric Bell fitting, etc. *Lond. 1890. 8vo.*
- ALLSOPP, C. Decree authorising the executive power of New Granada to enter into a contract, and grant a privilege, for opening a wheel carriage road across the Isthmus of Panama. *Tract. 8vo. vol. 258. Bogota, 1834. 8vo.*
- ALMAZAN Y DUQUE, J. Enajenacion del patrimonio de Aranjuez. *Madrid, 1870. 8vo.*
- ALMY, F. The improvement of the Sault Ste. Marie Canal. *Tract. 8vo. vol. 451. Duluth, 1887. 8vo.*
- ALPHONSO X., *King of Castile.* Libros del saber de astronomia del Rey D. Alfonso X. de Castilla. 5 vols. *Madrid, 1863-67. folio.*
- ALPS. Atti della Commissione per lo studio del miglior passaggio delle Alpi Elvetiche mediante una ferrovia che congiunga rete delle strade ferrate del regno d'Italia. *Torino, 1861. 4to.*
- Ferrovia delle Alpi Elvetiche. [Government Report.] 2 vol. *Firenze, 1866. 4to.*
- Relazioni tecniche intorno al perforamento delle Alpi. Rapporto della Commissione Governativa istituita per l'esame delle macchine inventate dagli ingegneri Grandis, Grattoni e Sommeiller. *Tract. 4to. vol. 52. [Torino,] 1857. 4to.*
- [A small Collection of plans and sections on Alpine Railways.] [] folio.
- I torrenti delle Alpi ed i mezzi diretti alla loro difesa. *Milano, 1859. 12mo.*
- Traforo delle Alpi tra Bardonnèche e Modane: relazione della direzione generale delle strade ferrate dello Stato. *Torino, 1863. folio.*
- ALSACE. Die Bevölkerung der Gemeinden in Elsass-Lothringen nach der Zählung vom 1 Decr. 1871. *Strassburg, 1873. 8vo.*
(No. 1 of the "Statistische Mittheilungen.")
- Der Flächeninhalt der Gemeindegemarkungen und die Ergebnisse der Viehzählung am 10 Januar 1873 in Elsass-Lothringen. *Strassburg, 1874. 8vo.*
(No. 11 of the "Statistische Mittheilungen.")

ALSACE. Resultate der Pegelbeobachtungen an den Elsass-Lothringischen Flüssen Rhein und Mosel von 1807 bis 1872 incl. By H. Grebenau. *Strassburg*, 1874. 8vo.

(No. 3 of the "Statistische Mittheilungen.")

ALTENECK, H. See **HEFNER-ALTENECK**.

ALTHANS, E. Zusammenstellung der statistischen Ergebnisse des Bergwerks-, Hütten- und Salinen-Betriebes in dem preussischen Staate während der zehn Jahre von 1852 bis 1861. *Tract.* 4to. vol. 30. *Berlin*, 1863. 4to.

ALTOFTS COLLIERY. Two Reports on the Explosion: by J. E. Barker and F. N. Wardell. *Lond.* 1887. folio.

ALVAREZ, J. G. Diccionario . . . de los ferro-carriles españoles, etc. 1869. See **GARCÉS, B. V.**, and **ALVAREZ, J. G.**

ALZOLA, P. de. Ferrocarriles de vía ancha y de vía estrecha. (Apéndice.) *Tract.* 8vo. vol. 463. *Madrid*, 1888. 8vo.

AMATI, C. Gli ordini di architettura di G. Barozzi da Vignola ombreggiati conforme le regole. *Tract.* 8vo. vol. 59. *Padua*, 1811. 8vo.

AMENDUNI, G. Sulle opere di bonificazione della plaga litoranea dell' agro romano chi comprende le paludi e gli stagni di Ostia, Porto Maocaese, etc. *Rome*, 1884. 4to.

AMERICA. A brief description of the facilities and advantages which a road across Central America, from Admiral's Bay, or Chiriqui Lagoon, on the Atlantic, to Chiriqui Bay, on the Pacific, would afford to the commerce of the world. *Tract.* 8vo. vol. *Philadelphia*, 1852. 8vo.

— Correspondence . . . concerning the North American Boundaries. *Lond.* 1838-43. folio.

— Map of the Polar Regions, Baffin Bay to Lincoln Sea, showing the most recent discoveries, etc. *Tract.* folio. vol. 37. *Washington*, [1885.] folio.

(Published by the U.S.A. Hydrographic Office.)

— Patent Laws of Latin-America (South and Central America). Translated by Jules Géraud. *Rio de Janeiro*, 1888. 8vo.

— [Official Reports and Anonymous Works on parts of America appear under the names of the Countries, Districts or Towns to which they relate.]

— See also **UNITED STATES OF AMERICA**.

AMERICAN ACADEMY OF ARTS AND SCIENCES. Memoirs. 4 vols. *Boston and Cambridge*, 1785-1818. 4to.

— New series. 11 Vols. *Boston and Cambridge*, 1833, etc. 4to.

— Proceedings, selected from the records. Vols. 1-25. *Boston and Cambridge*, 1848, etc. 8vo.

AMERICAN AND COLONIAL STEAM NAVIGATION COMPANY. Prospectus of a Joint Stock Company for Steam Navigation, from Europe to America, and the West Indies. *Tract.* 8vo. vol. 19. *Lond.* 1825. 8vo.

AMERICAN ASSOCIATION for the Advancement of Science.
Proceedings, 1848, etc.

Philadelphia, Cambridge, Salem, 1849, etc. 8vo.

AMERICAN ASSOCIATION OF STATE WEATHER SERVICES.

Report of the First Annual Meeting of the American Association of State Weather Services. (Co-operating with the Weather Bureau, U. S. Department of Agriculture.) [*U. S. Dep. of Agriculture, Weather Bulletin, 7.*] *Washington, 1893. 8vo.*

AMERICAN ELECTRICAL SOCIETY. *Journal. Vols. 1-2.*
Chicago, 1875-79. 8vo.

AMERICAN GASLIGHT ASSOCIATION. *Proceedings. Vols. 1-4.*
New York, 1875-80. 8vo.

AMERICAN INSTITUTE [of the city of New York]. *Annual reports. 1842, 1843, 1865-1872.* *Albany, 1844-72. 8vo.*

— *Journal of the American Institute: a monthly publication, devoted to the interests of agriculture, commerce, manufactures, and the arts, etc. 4 vols.* *New York, 1836-40. 8vo.*

— The Silk Question settled, the testimony of one hundred and fifty witnesses. Report of the proceedings of the national convention of silk growers and silk manufacturers, held in New York, October 13 and 14, 1843. *Tract. 8vo. vol. 54.*
New York, 1844. 8vo.

AMERICAN INSTITUTE OF ARCHITECTS. *Convention Proceedings of the American Institute of Architects, the Western Association of Architects, and Consolidation of the American Institute and the Western Association, held at . . . Cincinnati, November 20 and 21, 1889.* *Chicago, 1890. 8vo.*

— *Proceedings of the twenty-fourth, (twenty-fifth, etc.) annual Convention, held 1890, etc.* *Chicago, 1891, etc. 8vo.*

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS,
 Report of the Standard Wiring Table committee. Matthiessen's standard of resistance of copper. *Tract. 8vo. vol. 493.*
New York, 1890. 8vo.

— *Transactions. Vol. 1, etc.* *New York City, 1884, etc. 8vo*

AMERICAN INSTITUTE OF MINING ENGINEERS. *Discussions on Technical Education, at the Washington meeting. Tract. 8vo. vol. 421.* *Easton, 1876. 8vo.*

— *Transactions. Vols. 1, etc.* *Philadelphia, 1873, etc. 8vo.*

AMERICAN IRON AND STEEL ASSOCIATION. *Annual Reports.* *Philadelphia, 1877-84. 8vo.*

— *Directory to the Iron and Steel Works of the United States, 1878, 80, 86, 88.* *Philadelphia, 1878-88. 8vo.*

— *Proceedings of the Convention of Iron and Steel Manufacturers and iron ore producers at Pittsburgh, May 6, 1879. Tract. 8vo. vol. 402.* *Philadelphia, 1879. 8vo.*

— The wearing qualities of American Steel Rails. *Tract. 8vo. vol. 315.* *Philadelphia, 1879. 8vo.*

- AMERICAN PHILOSOPHICAL SOCIETY.** Proceedings. Vols. 16. (17, *etc.*). *New York*, 1876, *etc.* 8vo.
- Early Proceedings of the Society . . . compiled . . . from the manuscript minutes of its meetings from 1744 to 1838. *Philadelphia*, 1884. 8vo.
- Proceedings at the Dinner commemorative of the Centennial Anniversary of the Incorporation of the Society, *etc.* *Tract.* 8vo. *Philadelphia*, 1880. 8vo.
- Subject Register of papers published in the Transactions and Proceedings of the . . . Society. Compiled by H. Phillips. *Philadelphia*, 1889. 8vo.
- Report of the Committee appointed by the . . . Society to assist the Commission on amended Orthography, *etc.* *Tract.* 8vo. vol. 508. *Philadelphia*, 1889. 8vo.
- Rules and Regulations of the Henry M. Phillips Prize Essay Fund. *Tract.* 8vo. vol. 508. *Philadelphia*, 1888. 8vo.
- Rules and Regulations of the Magellanic Premium. *Tract.* 8vo. vol. 508. [*Philadelphia*, 1888?] 8vo.
- Supplementary Report of the Committee appointed to consider an International Language. *Tract.* 8vo. vol. 508. *Philadelphia*, 1888. 8vo.
- Transactions. Vol. 9. New series. *Philadelphia*, 1846. 4to.
- AMERICAN RAILWAY MASTER MECHANICS' ASSOCIATION.** Reports. *Cincinnati and other places*, 1868, *etc.* 8vo.
- AMERICAN SOCIETY OF CIVIL ENGINEERS.** Annual convention, 1886. [*New York*,] 1886. 8vo.
- Discussion on a paper by Elmer L. Corthell, "The South Pass Jetties." *Tract.* 8vo. vol. 430. [*New York*,] 1886. 8vo.
- Final report of the Committee on Standard Rail Sections. *Tract.* 8vo. vol. 532. [*New York*, 1893.] 8vo.
- The general adoption of the Twenty-four-o'clock Notation on the Railways of America. *Tract.* 8vo. vol. 518. *New York*, 1892. 8vo.
- Index to the Library. Part 1. Railroads. *New York*, 1881. 8vo.
- List of new Books on Engineering and Technology, published in Proceedings, from November, 1875, to April, 1877. *Tract.* 8vo. vol. 455. *New York*, 1877. 8vo.
- Memoir of Charles Shaler Smith, M. Am. Soc. C.E. *Tract.* 8vo. vol. 455. 1887. 8vo.
- Proceedings. Vol. 1, (2, *etc.*). *New York*, 1876, *etc.* 8vo.
- Reference Map of the United States: [with a] list of prominent Structures and Works. Prepared by the Committee on Information and Courtesy. *New York*, 1893. 8vo.
- Report of the Commission of the American Society of Civil Engineers on the Sewerage Plan of S. M. Gray. *Tract.* 8vo. vol. 438. *Providence*, 1886. 8vo.

- AMERICAN SOCIETY OF CIVIL ENGINEERS.** Report of the Committee on the cause of the Failure of the South Fork Dam, *etc.* *Tract.* 8vo. vol. 514. *New York*, 1891. 8vo.
- Report of the Committee on the compressive Strength of Cements and the compression of mortars and settlement of masonry. *Tract.* 8vo. vol. 477. *New York*, 1888. 8vo.
- Report of the Committee on the Preservation of Timber. *Tract.* 8vo. vol. 414. *New York*, 1885. 8vo.
- Report of the special Committee on Uniform Standard Time. *Tract.* 8vo. vol. 497. *New York*, 1889. 8vo.
- Transactions. Vol. 1, (2, *etc.*). *New York*, 1872, *etc.* 8vo.
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS.** Report of the Committee on Standard Pipe and Pipe Threads. *Tract.* 4to. vol. 449. [*New York*.] 1886. 8vo.
- Transactions. Vol. 1, (2, *etc.*). *New York*, 1880, *etc.* 8vo.
- AMERICAN SOCIETY OF NAVAL ENGINEERS.** Journal. Vol. 1, (2, *etc.*). *Washington, D.C.* 1890, *etc.* 8vo.
- AMERICAN WATERWORKS ASSOCIATION.** Constitution and by-laws, together with the proceedings of the 1st (2nd, *etc.*) annual session. 1881, *etc.* 8vo.
- AMINES SYNDICATE.** The Amines Process of Sewage Purification and utilization. [Collection of pamphlets.] *Tract.* 8vo. vol. 496. *Lond.* 1889–90. 8vo.
- AMTOT, H.** Mémoire sur les méthodes d'exploitation des couches puissantes de houille en France. *Tract.* 8vo. vol. 235. *Paris*, 1873. 8vo.
- AMMAN, G. A.** Handbuch zur Vorbereitung auf die Prüfung der Seedampfschiffsmaschinen, erster, zweiter und dritter Klasse. *Kiel*, 1885. 8vo.
- AMMEN, D.** The certainty of the Nicaragua Canal contrasted with the uncertainties of the Eads Ship Railway. *Tract.* 8vo. vol. 417. *Washington*, [1886.] 8vo.
- The errors and fallacies of the Inter-oceanic Transit Question: To whom do they belong? *Tract.* 8vo. vol. 417. *New York*, 1886. 8vo.
- Facts and suppositions relating to the American Isthmian Transit. Prepared, on invitation, for reading, March 8, 1887, before the Naval Institute, at Annapolis, Maryland. *Tract.* 8vo. vol. 521. *Washington*, 1887. 8vo.
- M. de Lesseps and his Canal. *Tract.* 8vo. vol. 439. *Washington*, 1880. 8vo.
- Papers on Surveys and reconnaissances from 1870 to 1875, for a Ship Canal across the American Isthmus. *Tract.* 8vo. vol. 277. *New York*, 1876. 8vo.
- The proposed Inter-oceanic Ship Canal across the American Isthmus. *Tract.* 8vo. vol. 309. *New York*, 1878. 8vo.

- AMSTERDAM.** Courte notice sur les installations du port d'Amsterdam, ainsi que sur le plan d'agrandissement de ce port : dressé . . . par la Commission pour le développement du transit, *etc.* *Tract. 8vo. vol. 524.* *Amsterdam, 1892. 8vo.*
- *Exhibition of 1883.* Official Catalogue of Exhibits from the Colony of New South Wales, *etc.* *Sydney, 1883. 8vo.*
- ANASTASI, A.** Nicolas Leblanc : sa vie, ses travaux, et l'histoire de la soude artificielle. *Paris, 1884. 8vo.*
- ANCIOLA, A. S. and COSSIO, E. DE.** Memoria sobre las minas de Rio-Tinto. *Tract. 8vo. vol. 126. (Atlas.) Tract. folio. vol. 8.* *Madrid, 1856. 8vo. & folio.*
- ANDERSON, A.** A letter to the directors on the projected East Indian Steam Navigation Company. *Tract. 8vo. vol. 163.* *Lond. 1840. 8vo.*
- Communications with India, China, &c. Observations on the practicability and utility of opening a communication between the Red Sea and the Mediterranean, by a Ship Canal, through the Isthmus of Suez, *etc.* *Tract. 8vo. vol. 201. Lond. 1843. 8vo.*
- ANDERSON, G.** Gas Purification. *Tract. 8vo. vol. 479.* *Lond. 1889. 8vo.*
- Improvements in apparatus employed in the manufacture of Gas. *Tract. 8vo. vol. 329.* *Lond. 1880. 8vo.*
- ANDERSON, J.** A practical treatise on Draining Bogs and swampy grounds, *etc.* *Lond. 1797. 8vo.*
- Report on the present state of Leith Harbour, and the practicability of rendering available its wet docks, *etc.* *Tract. 4to. vol. 1.* *Edinburgh, 1836. 4to.*
- Report relative to a design for a Chain Bridge, proposed to be thrown over the Firth of Forth, at Queensferry, *etc.* *Tract. 4to. vol. 13.* *Edinburgh, 1818. 4to.*
- ANDERSON, Sir J.** Existing and projected Telegraph Routes to India considered. *Tract. 8vo. vol. 262.* *Lond. 1886. 8vo.*
- Some observations upon the sources of errors in practical Telegraphy. *Tract. 8vo. vol. 295.* [*Lond.*] *8vo.*
(Reprinted from the "Electrician.")
- Statement of services performed by Sir J. Anderson. *Tract. 8vo. vol. 240.* *Lond. 1873. 8vo.*
- Statistics of Telegraphy. *Lond. 1872. 8vo.*
(Read before the Statistical Society.)
- The Strength of Materials and Structures. *Lond. 1872. 8vo.*
- System of National Defence. *Tract. 8vo. vol. 120.* *Edinburgh, 1853. 8vo.*
- ANDERSON, J. C., and FIFE, J. E.** Report on the Upper Godavery works. 1866. *See INDIA.—GODAVARI, River.*
- ANDERSON, J. W.** The Prospector's Handbook. 2nd edition. *Lond. 1887. 8vo.*

- ANDERSON, R. Lightning Conductors—their history, nature, and mode of application. *Lond.* 1879. 8vo.
- [Third edition.] *Lond.* 1885. 8vo.
- On Lightning Conductors and accidents by lightning. *Tract.* 8vo. vol. 308. *Lond.* 1878. 8vo.
- ANDERSON, T. Report on the refuse matters of the St. Rollox Works and their effect on the water of the River Clyde. *Tract.* 8vo. vol. 314. *Glasgow*, 1865. 8vo.
- ANDERSON, T. and BATEMAN, J. F. Report on the means of deodorising the Sewage of Glasgow. *Tract.* 8vo. vol. 105. *Glasgow*, 1858. 8vo.
- ANDERSON, W. London Bridge. 1823. See TYRELL, C., and ANDERSON, W.
- ANDERSON, W., Col. Sketch of the mode of manufacturing Gunpowder at the Ishaphore Mills in Bengal. With notes and additions by Lieut. Col. Parlbby. *Lond.* 1862. 8vo.
- ANDERSON, W., F.R.S., M.Inst.C.E. Howard lectures on the Conversion of Heat into useful work. *Tract.* 8vo. vol. 412. *Lond.* 1885. 8vo.
- Hydraulic Machinery. Lectures. *Chatham*, 1880. folio.
- Hydro-pneumatic gear for siege and heavy Ordnance. *Lond.* 1885. 8vo.
- On Hydraulic Machinery for obtaining small motive power. *Tract.* 8vo. vol. 327. *Dublin*, 1871. 8vo.
(From the Transactions of the Institution of Civil Engineers of Ireland.)
- On new applications of the mechanical properties of Cork to the arts. *Tract.* 8vo. vol. 422. *Lond.* 1866. 8vo.
- On Railway Bridges of small span, and cross beams of railway bridges. *Tract.* 8vo. vol. 157. *Dublin*, 1866. 8vo.
(From the Transactions of the Institution of Civil Engineers of Ireland.)
- On the Conversion of Heat into Work : a practical handbook on Heat-Engines. *Lond.* 1887. 8vo.
- — Second and enlarged edition. *Lond.* 1889. 8vo.
- On Water Supplies suited to Farms and Villages. *Tract.* 8vo. vol. 444. *Lond.* 1887. 8vo.
- The practical application of the modern Theory of Heat to the Steam Engine. *Tract.* 8vo. vol. 427. *Warrington*, 1886. 8vo.
- The Revolving Purifier for treatment of potable waters by means of metallic iron. [*Lond.* 1891.] folio.
- ANDES. Some particulars with reference to the concession for the construction of the Great Andino-Argentine Railway. *Tract.* 4to. vol. 82. *Lond.* 1879. 4to.
- See also ARGENTINE REPUBLIC. [*Railways.*]
- ANDRAUD, —. De l'air comprimé et dilaté comme moteur. Seconde édition, augmentée d'une partie expérimentale. *Paris*, 1890. 8vo.

- ANDRÉ, F. F. André, 1847–1888 : sa vie, ses œuvres. Avec une notice biographique par M. Berthelot. *Paris*, 1889. 8vo.
- ANDRÉ, G. G. A descriptive treatise on Mining Machinery, tools, etc. 2 vols. *Lond.* 1877–78. 4to.
- A practical treatise on Coal Mining. 2 vols. *Lond.* 1875–76. 4to.
- Rock Blasting : a practical treatise, etc. *Lond.* 1878. 8vo.
- ANDRÉE, R. Allgemeiner Handatlas. [Bielefeld,] 1881. folio.
- ANDREOSSY F., *Général*. Constantinople et le Bosphore de Thrace, pendant les années 1812, 1813, et 1814, et pendant l'année 1826. (Atlas of plates.) *Paris*, 1828. 8vo. and 4to.
- Histoire du canal du Midi, connu précédemment sous le nom de canal de Languedoc. *Paris*, 1799. 8vo.
- — [Another edition.] 2 vols. *Paris*, 1803. 4to.
- ANDREW, Sir W. P. The advance of Russia. With an appendix containing remarks on the canals and resources of Babylonia and European colonisation, by Dr. A. Sprenger. *Tract.* 8vo. vol. 426. *Lond.* 1886. 8vo.
- Break of Gauge in India. Reports by Messrs. John Fowler, John Hawkshaw, George P. Bidder, and Guilford L. Molesworth, etc. [Edited by W. P. Andrew.] *Tract.* 8vo. vol. 221. *Lond.* 1872. 8vo.
- — 2nd edition, containing a further report by Lieut.-Col. J. P. Kennedy, R.E. *Tract.* 8vo. vol. 227. *Lond.* 1873. 8vo.
- The Bolan and Khyber Railways. *Tract.* 8vo. vol. 302. *Lond.* 1879. 8vo.
- The Euphrates route to India. Letters addressed to the British and Turkish governments, etc. *Tract.* 8vo. vol. 210. *Lond.* 1871. 8vo.
- The Euphrates Valley Railway. Letters addressed to Her Majesty's Secretaries of State. *Tract.* 8vo. vol. 195. *Lond.* 1870. 8vo.
- The Euphrates Valley Route to India. A paper read before the British Association. *Tract.* 8vo. vol. 227. *Lond.* 1873. 8vo.
- The Euphrates Valley Route to India. An examination by two travellers of the Memoir published by Mr. W. P. Andrew. *Tract.* 8vo. vol. 442. *Lond.* 1857. 8vo.
- The Euphrates Valley Route to India in connection with the Central Asian question. A lecture, etc. *Tract.* 8vo. vol. 462. *Lond.* 1873. 8vo.
- India and her Neighbours. *Lond.* 1878. 8vo.
- Indian Railways as connected with British empire in the East. *Lond.* 1884. 8vo.
- The Indus and its provinces, considered in connection with improved means of communication. *Lond.* 1857. 8vo.
- Letter to the Secretary of State for India on the Euphrates Railway. *Tract.* folio. vol. 11. *Lond.* 1867. folio.

- ANDREW, Sir W. P.—*continued*. Letter to Viscount Palmerston on the Euphrates Valley Railway. *Tract. 8vo. vol. 442.*
Lond. 1857. 8vo.
- Memoir of the Euphrates Valley Route to India; with official correspondence. *Lond. 1857. 8vo.*
- On the completion of the Railway system of the Valley of the Indus: a letter to His Grace the Duke of Argyll. *Tract. 8vo. vol. 184.*
Lond. 1869. 8vo.
- Our Scientific Frontier. *Lond. 1880. 8vo.*
- The Scinde Railway and its relations to the Euphrates valley and other routes to India. *Lond. 1856. 8vo.*
- ANDREWS, E. B. and BALLATINE, W. G. State of Ohio. Maps of grouped sections, second geological district, 1870. 1870. folio.
- ANDREWS, G. R. The rise and progress of Bournemouth, and the public works in connection therewith. *Tract. 8vo. vol. 462.*
1885. 8vo.
- ANDREWS, J., *Capt.* A letter to the directors of the Calcutta Railway Company. *Tract. 8vo. vol. 79.* *Lond. 1837. 8vo.*
- ANDREWS, J. J. F. On Ship Caissons for dock basins and dry docks. *Tract. 8vo. vol. 528.* *Lond. 1891. 8vo.*
- ANDREWS, T. The action of Tidal Streams on metals during diffusion of salt and fresh water. *Lond. 1885. 8vo.*
- The effect of Chilling on the Impact Resistance of Metals.
 (From Min. Proc. Inst. C.E.) *Lond. 1890. 8vo.*
- The effect of Temperature on Strength of Railway Axles. 3 pt.
 (Two vols. of Photographs.) *Lond. 1886–91. 8vo. and folio.*
 (From Min. Proc. Inst. C.E.)
- Electro-chemical Effects on Magnetising Iron. 3 pt.
 (From Proc. Royal Soc.) [*Lond.*] 1887–89. 8vo.
- Heat Dilatation of Metals from low Temperatures.
 (From Proc. Royal Soc.) [*Lond.*] 1887. 8vo.
- Observations on Pure Ice. Parts I. and II. *Tract. 8vo. vol.*
 (From Proc. Royal Soc.) *Lond. 1890. 8vo.*
- Observations on pure Ice and Snow. *Tract. 8vo. vol. 437.*
Lond. 1886. 8vo.
- On Galvanic action between Wrought-iron, cast metals, and various steels during long exposure in sea-water; corrosion of metals during long exposure in sea-water; apparent lines of force on passing a current through water; variations in the composition of river waters; some curious concretion balls derived from a colliery mineral water. [Five papers in one vol.]
Lond. 1875–85. 8vo.
- A paper on the Strength of wrought-iron Railway Axles, etc.
Sheffield, 1890. 8vo.

- ANDREWS, T.—*continued*. The Passive State of Iron and Steel. 3 pt. *Lond.* 1890–91. 8vo.
- The relative electro-chemical positions of Wrought-iron, Steels, Cast Metal, etc., in Sea Water and other solutions. [*Edinburgh,*] 1887. 8vo.
- Some curious Concretion Balls derived from a colliery mineral water. Read before the British Association. *Tract.* 8vo. vol. 338. 1879. 8vo.
- ANDREWS, W. D. Circuit Court of the United States, District of Massachusetts. Driven Wells. W. D. Andrews et al.: v. F. A. Kennedy. Depositions of J. C. Hoadley and C. R. Cross, Boston, 1882–84. *Boston*, 1882–84. 8vo.
- ANGELL, J., Elements of Magnetism and Electricity, with practical instructions. New edition. *Lond.* [1882.] 8vo.
- ANGELL, J. B. University of Michigan. Report as president to the Board of Regents. *Tract.* 8vo. vol. 467. *Ann Arbor*, 1887. 8vo.
- The Higher Education: a plea for making it accessible to all. An address, June 26th, 1879. *Tract.* 8vo. vol. 395. *Ann Arbor*. 1879. 8vo.
- ANGELL, L. Report on the Sewerage of the Borough of Portsmouth. *Tract.* 8vo. vol. 133. *Lond.* 1864. 8vo.
- Sanitary Legislation and “local surveyors.” Copy of correspondence with the Royal Sanitary Commission, the Home Secretary, and the Local Government Board, 1870–1. *Tract.* folio. vol. 14. *Lond.* [1871.] folio.
- Sanitary science and the Sewage question: a lecture. *Lond.* 1871. 8vo.
- ANGELL, S. An historical sketch of the Royal Exchange. *Tract.* 8vo. vol. 216. *Lond.* 1838. 8vo.
- ANGLIN, S. The Design of Structures: a practical treatise, etc. *Lond.* 1891. 8vo.
- ÅNGSTRÖM, C. A. Handbok för beräkning och byggnad af turbiner och turbin-pumpar. 2 pt. (Atlas.) *Tract.* 8vo. vol. 392. *Stockholm*, 1880. 8vo.
- Om användning af hydrauliskt tryck såsom drifkraft för åtskilliga i mekaniska verkstäder och för jernhandteringen begagnade arbetsmaskiner. *Tract.* 8vo. vol. 438. *Stockholm*, 1886. 8vo.
- ANKLAMM, G. Die Wasserwerke der Stadt Berlin am Tegeler See. *Tract.* folio. vol. 39. *Berlin*, 1886. folio.
- ANNABLE, W. On the Compression of Fluid Steel. *Tract.* 8vo. vol. 466. (Iron and Steel Institute.) [1882.] 8vo.
- ANNANDALE, C. A concise Dictionary of the English Language. *Lond.* 1886. 8vo.
- ANNESLEY, W. A new system of Naval Architecture. *Lond.* 1822. 4to.

- ANONYMOUS. An account of the origin of Steam Boats, in Spain, Great Britain, and America; and of their introduction and employment upon the river Thames, between London and Gravesend, to the present time. *Tract. 8vo. vol. 55. Lond. 1831. 8vo.*
- An account of the Proceedings in order to the discovery of the Longitude. . . . By a Member of the Royal Society [John Harrison]. *Tract. 4to. vol. 21. Lond. 1763. 4to.*
- Account of the rise and progress of the present system of contracting for the conveyance of the Public Mails. *Tract. 8vo. vol. 201. [1847.] 8vo.*
- Adhäsion oder Zahnstange. *Tract. folio. vol. 44. 1888. folio.*
- Agricultural Drainage: being an extract of the practical part of an essay which appeared in the Quarterly Review, No. 171. *Tract. 8vo. vol. 118. Lond. 1850. 8vo.*
- L'album de la fabrique, guide international de l'acheteur en gros et annales de l'industrie et du commerce. Par L. B. 2 vols. *Paris, 1869-74. folio.*
- All about the Telephone and Phonograph. *Lond. [1883.] 8vo.*
- The Amalgamation of Railways considered as affecting the internal commerce of the country. *Tract. 8vo. vol. 458. Lond. 1846. 8vo.*
- American Catalogue of Books: or English guide to American literature, giving the full title of original works published in the United States since the year 1800. With especial reference to works of interest to Great Britain. *Tract. 8vo. vol. 386. Lond. 1856. 8vo.*
- Another Story of the Guns, or Sir E. Tennent and the Whitworth Gun. By the Fraser Reviewer. *Lond. 1864. 8vo.*
- An appeal to the public on the right of using oil-cement or composition for Stucco, &c., containing provisoes in letters patent, etc. *Tract. 8vo. vol. 74. Lond. 1778. 8vo.*
- Are we ready? or a few facts regarding England's Navy. By an Old Salt. *Tract. 8vo. vol. 280. Lond. 1877. 8vo.*
- Around the World by steam viâ Pacific Railway. *Tract. 8vo. vol. 439. Lond. [1871.] 8vo.*
- The Artificial Clock-maker, a treatise of Watch and clock-work. [By W. Derham.] *Lond. 1734. 8vo.*
- Astronomie et physique du globe. *Tract. 8vo. vol. 86. [Bruzelles, 1850.] 8vo.*
(From the Bulletin de l'Académie Royale de Belgique.)
- The Atlantic Telegraph: a descriptive history. *Lond. 1857. 8vo.*
- The Atlantic and South Atlantic Telegraphs. By a Member of the Institution of Civil Engineers. *Tract, 8vo. vol. 119. Lond. 1859. 8vo.*
- Atlas de choix, ou recueil des meilleures cartes de géographie. *Paris [1862.] folio.*

- ANONYMOUS. Battle of the Bridges; Free trade, an appeal to the public. *Tract. 8vo. vol. 338.* *Lond. 1882. 8vo.*
- Beiträge zur Kenntniss des amerikanischen Mühlenwesens und der Mehlfabrikation. *Berlin, 1832. 4to.*
- Biographia Britannica Literaria. Prospectus. *Tract. 8vo. vol. 54.* *Lond. 1839. 8vo.*
- The Bramah Lock controversy. Extracts from the Press. *Tract. 8vo. vol. 99.* *Lond. 1851. 8vo.*
- Die Bremsen für Eisenbahn-Fahrzeuge. *Tract. 8vo. vol. 532.* *Wien, 1891. 8vo.*
- Bricks and Brickmaking; an historical, technical, and descriptive sketch. *Birmingham, 1878. 8vo.*
- Bridge to carry a single line of railway over an occupation road and a stream immediately under the road. Plate folding in 8vo. case. *8vo.*
- Bridges. [A collection of photographs of various bridges and railways abroad.] *folio.*
- Bridges. [Various engravings relating to bridges.] *folio.*
- British Catalogue. *See London Catalogue.*
- British Railways and Canals in relation to British trade and government control. By Hercules. *Lond. [1885.] 12mo.*
- The bursting of a "bubble"; or, the birth of a new era; a national event, hourly expected at No. 12, Westminster Hall. [On the introduction of railways.] *Tract. 8vo. vol. 1.* *Lond. [1830?] 8vo.*
- The Builders' Price-book, containing a correct list of the prices allowed by most surveyors in London to the several artificers connected with building, including the journeymen's prices. 9th edition. *Tract. 8vo. vol. 59.* *Lond. 1792. 8vo.*
- A buoyant float Paddle-wheel. *Tract. 8vo. vol. 55.* [MS. sketches.] (From the 'Mechanics' Magazine.') *Lond. 1837. 8vo.*
- The Bryce-Douglas patent Valve Gear for marine and locomotive engines. *Tract. 8vo. vol. 416.* *Glasgow [1886.] 8vo.*
- Canal. [The article "Canal" from Rees' Encyclopædia.] *[Lond. 1819?] 4to.*
- [Collection of maps of English Canals and Navigations.] *[.] folio.*
- Canals. [Materials for a history of Canals, including aqueducts and railways: consisting of MS. notes and newspaper cuttings.] *[1835?] 4to.*
- Carmina Barbarica Latinè reddita. By an old Westminster. *Lond. 1890. 8vo.*
- Carnet de topographie conforme au cours de topographie professé à l'École des Mines de Paris en 1880. 10 vols. *Paris, [1880.] 8vo.*

- ANONYMOUS. The case of the Railways considered, especially with reference to Railway Accidents, and the operation of Lord Campbell's Act. By a Shareholder. *Tract. 8vo. vol. 127.*
Lond. 1852. 8vo.
- The case of the Window Duties. *Tract. 8vo. vol. 85.*
Lond. 1844. 8vo.
- Catalogue of current literature, containing the full titles of books now in print and on sale, with the prices, etc. *Lond. 1889. 8vo.*
- Centrifugal Castings. *Tract. 4to. vol. 109. 1883. 4to.*
- Chemins de fer atmosphériques. *Tract. 8vo. vol. 77.*
 (From the "Moniteur Industriel.") *Paris, 1844. 8vo.*
- Les chemins de fer depuis la guerre. *Tract. 8vo. vol. 300.*
 (From the "Revue des Deux Mondes.") *Paris, 1872. 8vo.*
- Chemins de fer européens. Recettes comparatives des années, 1860 et 1861. (Lithographed.) *1862.*
- Chemistry, theoretical, practical and analytical, as applied to the Arts and Manufactures. By Writers of Eminence. 2 vols.
Lond. [] 8vo.
- Cholera Morbus; its causes, prevention, and cure, etc. *Tract. 8vo. vol. 69.*
Lond. 1831. 8vo.
- The Civil Engineer. Being a collection of notices relative to chain and other iron bridges, tunnels, canals, harbours, etc.
[1820?–40?] folio.
- Circular exhibit of the Nautilus Diving Bell. *Tract. 4to. vol. 69.*
Lond. [1858.] 4to.
- Classical instruction: its use and abuse. *Tract. 8vo. vol. 178.*
 (From The "Westminster Review.") *Lond. 1854. 8vo.*
- The Coal Trade. *Tract. 8vo. vol. 284. Lond. [1830.] 8vo.*
- A collection of papers on Naval Architecture; originally communicated through the channel of the wrapper of the "European Magazine." 2 vols. *Lond. 1800. 8vo.*
- Colliery Explosions and the weather of 1885. *Tract. 8vo. vol. 406.*
Manchester, 1886. 8vo.
- The complete Atlas of modern, classical, and celestial maps, etc. *Lond. 1859. folio.*
- A complete scientific and popular Treatise upon Perspective, with the theories of Reflection and Shadows. By a Pupil of J. P. Thénot. *Lond. 1836. 8vo.*
- Compound Locomotives. *Tract. folio. vol. 37.*
Lond. 1885. folio.
- A concise History of the origin and progress of Printing. *Lond. 1770. 8vo.*
- The condition and treatment of the Children employed in the Mines and Collieries of the United Kingdom. *Tract. 8vo. vol. 284.*
Lond. 1842. 8vo.

- ANONYMOUS. Conférences, faites à bord du vaisseau-école le Louis XIV. sur l'emploi des torpilles pour la défense des ports. 1868. 4to.
- Construzione ed esercizio delle strade ferrate e delle tramvie. Roma, 1888. folio.
- Continuous Railway Brakes. By a Frequent Railway Traveller. *Tract. 8vo. vol. 279.* Lond. [1877?] 8vo.
- The conversion of English Timber. Lond. [1886.] 8vo.
(*Timber-trade Handbooks, No. 1.*)
- Conveyance upon Canals and Railroads compared. By Detector. *Tract. 8vo. vol. 4.* Lond. 1831. 8vo.
- Course of practical Geometry [as applied to the study of fortification]. [Chatham, 1885?] 8vo.
- The Currency : its laws, evils, and remedies, *etc.* By Publicola. *Tract. 8vo. vol. 63.* Lond. 1840. 8vo.
- The Currency laws and their operation, with suggestions for their amelioration. *Tract. 8vo. vol. 119.* Lond. [1848?] 8vo.
- Cursory thoughts on some natural phenomena bearing chiefly on the primary cause of the Succession of new Species, and on the unity of force. *Tract. 8vo. vol. 137.* New York, 1862. 8vo.
- Decimal Coinage. *Tract. 8vo. vol. 139.* [Lond. 1855.] 8vo.
(*From The Times.*)
- Decimal Coinage : a short and easy method of changing the present currency into the decimal system. By a Retired Merchant. *Tract. 8vo. vol. 119.* Lond. 1854. 8vo.
- The Decimal System adapted to our present Coinage. By J. S. *Tract. 8vo. vol. 202.* Lond. 1857. 8vo.
- Decimalism. By a Commercial Traveller. Part I. *Tract. 8vo. vol. 202.* Lond. 1855. 8vo.
- De la navigation du Rhin, considérée dans ses rapports avec le royaume des Pays-Bas. Traduit de l'allemand. *Tract. 8vo. vol. 24.* Cologne, 1827. 8vo.
- De la nécessité de créer des bibliothèques scientifiques industrielles, ou au moins d'ajouter aux bibliothèques publiques une division des sciences appliquées aux arts et à l'industrie. *Tract. 8vo. vol. 97.* Paris, 1847. 8vo.
- Derrick and Drill ; or an insight into the discovery, development, and present condition and future prospects of petroleum in New York, Pennsylvania, Ohio, West Virginia, *etc.* New York, 1865. 12mo.
- [Description and plans of a Screw Steamer. In Swedish.] [. . .] 8vo.
- Description de divers procédés pour extraire la soude du sel marin. *Tract. 4to. vol. 68.* Paris, [1794.] 4to.
- Description des phares existants sur le littoral maritime du globe. Nouvelle édition . . . avec un supplément général au 1^{er} juillet, 1884. [By P. J. Coulier.] Paris, 1884. 8vo.

- ANONYMOUS. The description of a new universal Microscope, which has all the uses of the simple, compound, opaque, and aquatic microscopes; also the improved solar microscope with megascope, and a catalogue of all the principal microscopic objects. *Tract. 8vo. vol. 57. Lond. 1786. 8vo.*
- A descriptive account of the mechanism, properties, and comparative advantages of the new Hydrostatic Ship. *Tract. 8vo. vol. 26. Lond. 1815. 8vo.*
- Diamond Drill. *Tract. 8vo. vol. 233. New York, 1871. 8vo.*
- Dictionary of Engineering terms, in German-English and English-German. *Tract. 8vo. vol. 183. Lond. [1869.] 8vo.*
(A Supplement to "The Engineer.")
- Dictionnaire polyglotte militaire et naval: français, allemand, anglais, néerlandais et japonais, etc. Nouvelle édition. (Atlas of Plates.) 2 vols. *Tokio [1881?] 8vo.*
- Dictionnaire universel des synonymes de la langue française. 2 vols. *Paris, 1822. 12mo.*
- Les différents systèmes de téléphone et leur application. *Tract. 4to. vol. 89. Paris, [1882.] 4to.*
- The effects of Roads on Population. *Tract. 8vo. vol. 20. Lond. 1831. 8vo.*
- Electricity *versus* Gas. *Tract. 4to. vol. 87 and 8vo. vol. 308. [Lond.] 1877. 4to. and 8vo.*
- The Elevation of Fluids. [An article reprinted from the Supplement to the Encyclopædia Britannica.] *Tract. 4to. vol. 27. [Lond. 1824.] 4to.*
- Employment, Christmas 1869. *Tract. 8vo. vol. 178. Lond. 1869. 8vo.*
- Encyclopédie méthodique, ou par ordre de matières; par une Société de gens de lettres, de savants et d'artistes; précédé d'un vocabulaire universel, etc. 171 vols. *Liège and Paris, 1782-92. 4to. (Incomplete.)*
- Encyclopédie technologique, dictionnaire des arts et manufactures, description des procédés de l'industrie française et étrangère. 2 vols. *Paris, 1845-47. 8vo.*
- The Engineer and Machinist's Assistant: a series of plans, sections, and elevations of stationary, marine, and locomotive engines, water wheels, spinning machines, tools, etc. With detailed descriptions. New . . . edition. *Glasgow, 1853. folio.*
- The Engineer and Machinist's Drawing Book, . . . forming a progressive series of lessons in drawing, and examples of approved construction. On the basis of the works of MM. Le Blanc and Armengaud. *Glasgow, 1855. folio.*
- Engineering Estimates, Cost, and Accounts: a guide to commercial engineering . . . By a General Manager. *Lond. 1890. 8vo.*

- ANONYMOUS. The Engineering Plagiarist ; or Dodd from Phillips exposed. *Tract. 8vo. vol. 94.* *Newcastle, 1795. 8vo.*
- Engineers and Officials : an historical sketch of the progress of "Health of Towns Works." *Lond. 1856. 8vo.*
- The Engineer's Guide to the Royal and Mercantile Navies. By a Practical Engineer. 4th edition. *Lond. 1866. 12mo.*
- Engineers of the Royal Navy. *Tract. 8vo. vol. 219.*
Lond. 1859. 8vo.
- English and foreign Mining Glossary, to which are added the smelting terms used in France, Spain and Germany. 3rd edition. *Lond. 1871. 12mo.*
- Epistémionie, ou tables générales d'indications des connaissances humaines. *Tract. 8vo. vol. 53.* [1850?] *8vo.*
- Ernstige gedachten over onze landsverdediging en ons budget in 1870 van Leonidas [P. J. de Quartel]. *Tract. 8vo. vol. 210.*
Utrecht, 1870. 8vo.
- An Essay on the many advantages accruing to the community, from the . . . Embellishments of great and capital Cities, etc. *Tract. 8vo. vol. 216.* *Lond. 1754. 8vo.*
- Every Farmer his own Land Surveyor : for the use of Emigrants. *Lond. 1856. 8vo.*
- Experimental Proofs that the surface of standing water is not convex but horizontal. By Parallax. [J. Hampden.] *Tract. 8vo. vol. 194.* *Lond. 1870. 8vo.*
- The experiments used by a Captain of a Man-of-war, for promoting conversation by pictures, and other mediums. By a Person sent from the ships for that end. *Tract. 8vo. vol. 36.*
Lond. 1751. 8vo.
- Explosives : a brief sketch of their history and use. *Tract. 8vo. vol. 527.* [Lond. 1892.] *8vo.*
- Exposition of the real State of the Coal Trade. *Tract. 8vo. vol. 284.* *Durham [1830.] 8vo.*
- Facts and Scientific Opinions about Wood preserved by hydrocarbon oils. *Tract. 8vo. vol. 485.* *San Francisco, 1869. 8vo.*
- Facts concerning Arinour. 1888. *8vo.*
- Facts for the times ! By B——. No. 2. Railway finance. *Tract. 8vo. vol.* *Lond. 1867. 8vo.*
(From the "Pall Mall Gazette.")
- A few general Observations on the principal Railways executed, in progress, and projected in the Midland Counties and North of England. *Lond. 1838. 8vo.*
- A few plain Reasons why the Gauge Commissioners' Report should receive legislative sanction. By One of the Public. *Tract. 8vo. vol. 260.* *Lond. 1846. 8vo.*
- The Finger-post ; or direct road from John O'Groat's to the Land's End : being a discussion of the Railway Question. By ??? *Tract. 8vo. vol. 1.* *Lond. [1825.] 8vo.*

- ANONYMOUS. Further Researches in Mathematical Science. *Tract.* 8vo. vol. 245. *Bridgwater*, 1875. 8vo.
- [Furniture. A series containing forty-four engravings, in colours, of fashionable furniture.] *Lond.* 1823. 4to.
- The Gatling Gun. Official reports of trials, description, general directions, targets, etc. *Tract.* 8vo. vol. 367. *Hartford, Conn.*, 1878. 8vo.
- Gauge Question. Dialogues of the gauges. *Tracts.* 8vo. vols. 70 and 461. (From the "Railway Record.") *Lond.* 1846. 8vo.
- General Classification of Goods by merchandise trains on railways. *Tract.* 8vo. vol. 256. *Lond.* 1874. 8vo.
- General Specifications for Iron Highway (and Railroad) Bridges and Viaducts. *Tract. folio.* vol. 37. *New York*, 1885. folio.
- Die Geschichte und Entwicklung des elektrischen Fernsprechwesens. *Tract.* 8vo. vol. 329. *Berlin*, 1880. 8vo.
- Gleanings in Science; contributions on various subjects, embracing physical and economical inquiries pursued in India. 3 vols. *Calcutta*, 1829–31. 8vo.
- A Glossary of terms used in Grecian, Roman, Italian, and Gothic Architecture. 5th edition. 3 vols. *Oxford and Lond.* 1850. 8vo.
- God's Truth or Man's Science, etc. (What is the shape of a Level? Are rivers, lakes, seas, and oceans flat or round, plane or spherical?) [J. Hampden.] *Tract.* 8vo. vol. 194. *Swindon*, [1870.] 8vo.
- The grammar of House Planning: hints on arranging and modifying plans of cottages, street-houses, farm-houses, etc. By M. S. A. and M. R. A. S. *Edinb.* 1864. 8vo.
- Handbuch der Baukunde . . . Eine systematische und vollständige Zusammenstellung der Resultate der Bauwissenschaften mit den zugehörigen Hilfswissenschaften. Veranstalet von den Herausgebern der Deutschen Bauzeitung und des Deutschen Baukalenders. In 3 Abtheilungen. I. Hilfswissenschaften zur Baukunde. II. Baukunde des Architekten. III. Baukunde des Ingenieurs. *Berlin*, 1885, etc. 8vo.
- Health in country homes: the Disposal of Sewage. A series of articles reprinted from the *New York Evening Post.* *Tract.* 8vo. vol. 520. *New York*, [] 8vo.
- Hints to Steamship Owners in relation to the economy and efficiency of marine engines. By a Consulting Engineer. *Tract.* 8vo. vol. 327. *Lond.* 1870. 8vo.
- Histoire des torpilles. *Tract.* 8vo. vol. 271. *Paris*, 1877. 8vo.
- The history and description of Fossil Fuel, the collieries, and coal trade of Great Britain. By the author of the "Treatise on manufactures in metal" in the Cabinet Cyclopædia [i.e. John Holland]. 2nd edition. *Lond.* 1841. 8vo.
- The history and philosophy of Earthquakes. By a Member of the Royal Academy of Berlin. *Lond.* 1757. 8vo.

ANONYMOUS. The History of Inland Navigations; particularly those of the Duke of Bridgewater, in Lancashire and Cheshire; and the intended one in Staffordshire, Cheshire, and Derbyshire. [By J. Brindley.] 2 parts. *Tract. 8vo. vol. 95.*

Lond. 1766-69. 8vo.

— — 3rd edition. *Tract. 8vo. vol. 25. Lond. 1779. 8vo.*

— — Addenda. (Second addenda.) *Tract. 4to. vol. 58. 1793, 94.*

— *Hilfswissenschaften zur Baukunde: unter Mitwirkung von Fachmännern der verschiedenen Einzelgebiete, bearbeitet von den Herausgebern der Deutschen Bauzeitung und des Deutschen Baukalenders, etc. [Handbuch der Baukunde. Abt. I.]*

Berlin, 1885. 8vo.

— Human Industry; or, a history of most manual arts, deducing the original, progress, and improvement of them, *etc.*

Lond. 1661. 12mo.

— Hydraulics. [Signed H. W.] *Tract. 8vo. vol. 296.*

[] 8vo.

— Industrial Rivers of the United Kingdom. By various well-known Experts. *Lond. 1888. 8vo.*

— Des Ingenieurs Taschenbuch. Herausgegeben von dem Verein "Hütte." *Berlin, 1887. 8vo.*

— — 15th edition. 2 vols. *Berlin, 1892-93. 8vo.*

— An Inquiry into the National Debt and Sinking Fund. By F. C. *Tract. 8vo. vol. Lond. 1856. 8vo.*

— Instructions for the establishment of Benefit Building Societies. *Tract. 8vo. vol. 180. Lond. 1838. 8vo.*

— Instructions for the establishment of Friendly Societies. *Tract. 8vo. vol. 180. Lond. 1838. 8vo.*

— Instructions for the establishment of Parochial Societies for granting Government Annuities. *Tract. 8vo. vol. 180.*

Lond. 1837. 8vo.

— Insulation for Submarine Telegraphy. *Tract. 8vo. vol. 136.*

[*Lond. 1860?*] 8vo.

— The interest of Great Britain in supplying herself with Iron impartially considered. *Tract. 8vo. vol. 56. [] 8vo.*

— An introduction to the present practice of Surveying and Leveling, etc. By a Civil Engineer. *Lond. 1846. 8vo.*

— The "Iron Question" vindicated; and the reviewers reviewed. By Observer. *Tract. 8vo. vol. 196. Lond. 1857. 8vo.*

— The Joint Education of the Artillery and Engineers injurious to the public service. By a Field Officer. 2nd edition. *Tract. 8vo. vol. 229. Lond. 1873. 8vo.*

— Key to Steam Engineering: a . . . catechism of the Steam Engine and Boiler . . . By W. R. B. Also the Combustion of Coal, chemically and practically considered. By H. S. W.

Boston, 1890. 8vo.

- ANONYMOUS. Lectures on Polarized Light, delivered before the Pharmaceutical Society, *etc.* *Lond.* 1843. 8vo.
- Letter from a young Oxonian, to one of his fellow pupils, upon the subject of Magnetism. *Tract.* 8vo. vol. 36. *Lond.* 1697. 8vo.
- [Letter on Railroads and Canals. MS.] *Tract.* 4to. vol. 36. [1825?] 4to.
- A Letter to a friend, containing observations on the comparative merit of Canals and Railways, occasioned by the reports of the Committee of the Liverpool and Manchester railway. By F. P. *Tract.* 8vo. vol. 4. *Lond.* 1832. 8vo.
- — 2nd edition, with additions. *Tract.* 8vo. vol. 60. *Lond.* 1832. 8vo.
- Letter to James Caldwell, on Canals and Rail-roads. *Tract.* 8vo. vol. 503. *Lond.* 1825.
- A letter to Lord Dalhousie, submitting reasons for preferring the original recommendations of the Gauge Commissioners, to the recent proposals of the Board of Trade. *Tract.* 8vo. vol. 461. *Lond.* 1846. 8vo.
- Lighthouse Management. The Report of the Royal Commissioners on lights, buoys, and beacons, 1861, examined and refuted: by an Englishman. *Tract.* 8vo. vol. 125. *Lond.* 1861. 8vo.
- Locomotive Adhesion. Remarks upon a Paper entitled "On the adhesion of locomotive engines, and certain expedients for increasing or supplementing that function," by a Member of the Society of Engineers. *Tract.* 8vo. vol. 157. *Lond.* 1865. 8vo.
- Logarithms of numbers from 1 to 10,000, calculated, stereo-moulded, and printed by machinery. *Tract.* 8vo. vol. 103. [1850?] 8vo.
- London Catalogue of Books, with their sizes, prices, and publishers, containing the books published in London, and those altered in size and price, since the year 1814 to 1839. *Lond.* 1839. 8vo.
- — Supplement from 1846 to 1849. *Lond.* 1849. 8vo.
- [Continued as:]
- The British Catalogue, 1837-49, compiled by Sampson Low & Co. *Lond.* 1858. 8vo.
- [Continued as:]
- The English Catalogue; comprising the contents of the "London" and the "British" catalogue, and the principal works published in the United States of America and continental Europe, with the dates of publication, in addition to the size, price, edition, and publisher's name, from 1835, *etc.* Compiled by Sampson Low & Co. *Lond.* 1864, *etc.* 8vo.
- Manuel des lois du bâtiment. *Paris*, 1863. 8vo.
- Mémoire explicatif sur un appareil dit avertisseur, ou signal d'arrêt des trains. *Tract.* 4to. vol. 42. [1850?] 4to.

ANONYMOUS. Mémoire sur les écluses des canaux et navigation.

In MS. [] folio.

- Mémoire sur un nouveau moyen d'emplir et de vider les écluses, suivi de notes sur l'écoulement des fluides. Considérations sur le développement et la largeur à donner aux courbes des canaux. Par J. P. Gt. *Tract. 4to. vol. 51.* Paris, 1825. 4to.
- Mémoires sur la fortification perpendiculaire. Par plusieurs Officiers du Corps Royal du Génie. Paris, 1786. 4to.
- Memoranda relating to the formation of the Bridges and the requisite Exercise of the Men. [Military Pontoons.] *Tract. 8vo. vol. 335.* (Lithographed.) [1835?] 8vo.
- Metal Turning. By a Foreman Pattern-Maker. Lond. 1890. 8vo.
- Metropolitan experience of the unsuccessful results of the system of Pipe Drainage. *Tract. 8vo. vol. 105.* Lond. 1852. 8vo.
(From *The Times* of Sept. 29, 1852.)
- Minium compared with Lead-minium and other colours. *Tract. 8vo. vol. 126.* Brussels, 1860. 8vo.
- Modern Villa and Cottage Architecture. [1850?] Oblong 4to.
(Atlas only.)
- Le moniteur des architectes. [A series of plates only.] 4 vols. *Tracts 4to. vol. 59.* Paris, [1850?] 4to.
- Narrow and wide Gauges considered; also effects of competition and Government supervision. *Tract. 8vo. vol.* Lond. 1845. 8vo.
- Native Guano *versus* Sewer Water. A practicable plan, and where attainable, for cleansing and draining populous towns, without poisoning of rivers, or destroying all the best manure to use the worst. By a Scavenger. *Tract. 8vo. vol. 105.* Lond. 1849. 8vo.
- New experiments touching the relation betwixt Flame and Air, and particularly betwixt air and the *flamma vitalis* of animals: to which are annexed two attempts; the one, to produce living creatures in *Vacuo Boyleiano*; the other made upon gnats in the same vacuum. *Tract. 8vo. vol. 35.* [1704?] 8vo.
- A new map from the mouth of the Thames to the Severn. 1798. 8vo.
- The new pocket Dictionary of the Spanish and English languages. 2 parts. Lond. 1809. 12mo.
- Normen für einheitliche Lieferung und Prüfung von Portland-cement. *Tract. 4to. vol. 106.* Stettin, 1887. 4to.
- Notes on Art. British Sculptors. Sculpture and our public monuments. *Tract. 8vo. vol. 137.* Lond. 1861. 8vo.
- Notes on Building and Road Making, with rules for estimating repairs to tanks and channels. 4th edition. Madras, 1856. 8vo.
- Notes on Building Construction: arranged to meet the requirements of the Science and Art Department. [By Major Percy Smith.] 4 vols. Lond. 1879-91. 8vo.

- ANONYMOUS. Notes on the application of Manganese bronze as a material for Steamship Propellers. *Tract.* 8vo. vol. 349.
London. [1883.] 8vo.
- Notice sur l'emploi de la tôle du fer forgé et de la fonte dans les ponts (système de MM. Cadiat et Oudry). *Tract.* 8vo. vol. 99.
Paris, 1851. 8vo.
- Notice sur l'emploi du fer dans le revêtement des puits et des galeries aux charbonnages de la Société Cockerill à Seraing. *Tract.* 8vo. vol. 346.
Liège, 1880. 8vo.
- Observations on a general Iron Railway; showing its great superiority over all the present methods of conveyance by turnpike roads and canals, *etc.* [Thomas Gray.] *London.* 1820. 8vo.
- — 4th edition. *London.* 1823. 8vo.
- Observations on Brick-bond, as practised at various periods. *Tract.* 8vo. vol. 394. *London.* 1884. 8vo.
- Observations on Bridge-building, and the several Plans offered for a new bridge. By Publicus. *London.* 1760. 8vo.
- Observations on the Duke of Richmond's extensive plans of fortification, *etc.* (A reply to the Answer to a short essay on the modes of defence best adapted to the situations and circumstances of this island, *etc.*, in a letter to His Grace the Duke of Richmond.—An appendix to the foregoing pamphlets: containing a comparison between Vauban's method of construction and that of the Marquis de Montalembert, *etc.* By the author of the Short Essay [J. Glenie].) *London.* 1794. 8vo.
- Observations on the use of Timekeepers. *Tract.* 8vo. vol. 465.
London. [1800?] 8vo.
- Observations on the Ventilation and Construction of public Buildings; relating to the site of the contemplated new houses of Parliament. *Tract.* 8vo. vol. 58. *London.* 1835. 8vo.
- Observations upon the working of "The Regulation of Railways Act, 1873," and of the Court of the Railway Commissioners. *Tract.* 8vo. vol. 288. *Manchester,* 1878. 8vo.
- Of the Plurality of Worlds. *London.* 1853. 8vo.
- On a new mode of Secret Writing. [By R. P.] *Tract.* 8vo. vol. 504. *[London.* 1829.] 8vo.
- On a new Projection of the Sphere. Investigation of the conditions under which a spherical surface can be projected on a plane, so that the representation of any small portion of the surface shall be similar in form to the original. *Tract.* 8vo. vol. 130. *London.* [1860.] 8vo.
- (From the Journal of the Royal Geographical Society.)
- On national Defences, and on the war in Caffraria. By an Un-attached. *Tract.* 8vo. vol. 120. *London.* 1852. 8vo.
- On the alleged Decline of Science in England. By a Foreigner. *Tract.* 8vo. vol. 192. *London.* 1831. 8vo.

ANONYMOUS. On the destructive effects of Red Lead upon the bottoms of iron and steel ships. *Tract. Folio. vol. 43.*

[1872?] folio.

— On the Dredging-machine. *Tract. 8vo. vol. 36.*

Lond. 1843. 8vo.

(From Weale's Quarterly Papers on Engineering.)

— On the gnomonic Projection of the Sphere. *Tract. 8vo. vol. 193.*

[1851.] 8vo.

— On the introduction and progress of the Screw Propeller; with statistics of the comparative economy of screw ships and paddle vessels for Her Majesty's service, etc. *Greenwich, 1856. 4to.*

— On the Manufacture of Locomotives. *Tract. 8vo. vol. 56.*

[1831.] 8vo.

— On the Motion of Fluids in Pipes. *Tract. 8vo. vol. 103.*

[1850?] 8vo.

— On the Organisation of Science: being an essay towards systematisation. By a Free Lance. *Tract. 8vo. vol.*

Lond. 1892. 8vo.

— On the principles of Algebra. *Tract. 8vo. vol. 193. [1848?] 8vo.*

(Cuttings from the Mechanics' Magazine.)

— On the Selection of Projected Lines, with description of the Railway Scale. *Tract. 8vo. vol. 77. Lond. [1847?] 8vo.*

— On the use of Mechanical Power, in draught on turnpike roads, with reference to the new system of Wood Paving. 2nd edition. *Tract. 8vo. vol. 201. Lond. 1842. 8vo.*

— On Tunnels and Inclined Planes as forming parts of railways. [By Investigator.] *Tract. 4to. vol. 36. [Manchester, 1830?] 4to.*

— The Originator of the Electric telegraph. *Tract. 8vo. vol. 308. [1870.] 8vo.*

— Ought the State to buy the Railways? A Question for Everybody. By a Midland Shareholder. *Tract. 8vo. vol.*

Lond. 1873. 8vo.

(Reprinted, with additions, from the "British Quarterly Review.")

— Our Roadways: by Viator. *Tract. 8vo. vol. 270.*

Lond. 1876. 8vo.

— The Overseer's Manual: or, a guide to the Canefield and the Sugar Factory . . . New and enlarged edition.

Demerara, 1887. 8vo.

— Patent Law and Practice: by a Practitioner. With a chapter on patent agents. *Lond. 1871. 12mo.*

— Patent Law Reform. *Tract. 8vo. vol. 509. [Lond. 1893.] 8vo.*

(Reprint from "Engineering.")

— Pattern Making: a practical treatise embracing the main types of Engineering Construction. By a Foreman Pattern-Maker.

Lond. 1885. 8vo.

— Personal recollections of English Engineers, and of the introduction of the railway system into the United Kingdom. By a Civil Engineer. [F. R. Conder.] *Lond. 1868. 8vo.*

- ANONYMOUS. Petition against a Bill to amend the law relating to Copyright, which has been read a first time in the House of Commons. *Tract. 8vo. vol. 63.* [1840?] 8vo.
- A philosophical Inquiry into the properties of Electricity. In a letter to a friend. *Lond. 1746. 8vo.*
- Plan for lessening Taxation by state Purchase of Railways. By a Civil Engineer [J. Mitchell]. *Lond. 1860. 8vo.*
- Plans for a Submarine Communication between England and France, 1858. *Tract. 8vo. vol. 115.* *Dublin, 1858. 8vo.*
- A Plan for the Employment of Natural Forces, now allowed to go to waste, as a substitute for coal. By Indicator. *Tract. 8vo. vol. 219.* *Lond. 1871. 8vo.*
- Polytechnische Bibliothek. Verzeichniss der in Deutschland und im Auslande neu erschienenen Werke aus den Fächern der Mathematik und Astronomie, der Physik und Chemie, der Mechanik und des Maschinenbaues, der Baukunst und Ingenieurwissenschaft, des Berg- und Hüttenwesens, der Mineralogie und Geologie. 1868–78. 7 vols. *Leipzig, 1868–78. 8vo.*
- The Practical Builder's perpetual price-book ; with the customs of measuring and valuing, *etc.* *Lond. 1825. 4to.*
- Practical Carpentry, joinery, and cabinet-making ; being a new and complete series of lines for the use of workmen. *Lond. 1826. 4to.*
- The "Practical Engineer" Pocket Book and Diary, 1891, (1892, *etc.*) Edited [after 1892] by W. H. Fowler. *Lond. 1891, etc. obl. 8vo.*
- Practical hints for levelling. By an Engineer. *Tract. 8vo. vol. 158.* *Lond. 1865. 8vo.*
- Practical Masonry, Bricklaying, and Plastering . . . and practical treatises on slating, plumbing, painting, and glazing. *Lond. 1830. 4to.*
- Practical remarks on Cements, for the use of civil engineers, architects, builders, *etc.* [By a C. E. and F. G. S.] 2nd edition. *Tract. 8vo. vol. 15.* *Lond. 1832. 8vo.*
- Practical rules for ascertaining the Deviations of the Compass, caused by the iron in a ship. *Tract. 8vo. vol. 103.* *Lond. 1852. 8vo.*
- — [Another edition.] *Tract. 8vo. vol. 103.* *Lond. 1855. 8vo.*
- A practical treatise on the Steam Engine Indicator and indicator diagrams. By AMICE, enlarged by W. W. Beaumont. *Lond. 1888. 8vo.*
- Practice with Science. A series of agricultural papers. 2 vols. *Lond. 1867–69. 8vo.*
- Précis d'une nouvelle méthode pour réduire à de simples procédés analytiques la démonstration des principaux théorèmes de la géométrie, et la dégager des figures et constructions qu'on y a employés jusqu'à présent. Par J. G. C[orancez]. *Tract. 4to. vol. 77.* *Paris, 1798. 4to.*

- ANONYMOUS.** The Prevention of Panics: or suggestions for an economical system of national finance in connexion with the construction of public works. By a Civil Engineer. *Tract. 8vo. vol. 155.* *Lond. 1866. 8vo.*
- Prevention of Railway Accidents. By a Practical Engineer. *Tract. 8vo. vol. 225.* *Kingston, 1853. 8vo.*
- The proposal to place the Electric Telegraphs throughout the kingdom under the control of the Post Office is not novel, and was not first made by the Post Office. *Tract. folio. vol. 40.* *1868. folio.*
- Proposals and inducements—for a . . . number of people to join in the purchase of . . . drain'd and derelict lands; . . . most of these . . . having been under the same circumstances with those of Bedford Level, the history of that Level is annexed, *etc.* By R. S. *Tract. 8vo. vol. 12.* *Lond. 1726. 8vo.*
- Proposals at large, for the easy and effectual amendment of the Roads. By a Gentleman. *Tract. 8vo. vol. 270 and 316.* *Lond. 1753. 8vo.*
- Proposed standard rules for the uniform supply and testing of Portland Cement. MS. *Tract. Folio. vol. 39.* [1885 ?] folio.
- Protection to Home Industry. [Two pamphlets.] *Tract. 8vo. vol. 483.* *Philadelphia, [1879.] 8vo.*
- Public reasons against Rail-roads with Locomotive Motions. [With replies by William Cubitt.] *Tract. 8vo. vol. 503.* *1825. folio.*
- Published official accounts of competitive trials of Steam Fire Engines. *Tract. folio. vol. 11.* *1862. folio.*
- The Pursuit of Knowledge under difficulties; illustrated by anecdotes [of men distinguished in philosophy, literature and art. Library of Entertaining Knowledge]. *Lond. 1830. 8vo.*
- The Quadrature of the Circle. By Geometricus. *Tract. 8vo. vol. 212.* *Liverpool, 1870. 8vo.*
- The Question of the Gauges commercially considered by a Practical Man. *Tract. 8vo. vol. 461.* *Lond. 1846. 8vo.*
- La question sanitaire. *Tract. 8vo. vol. 452.* *Lond. 1886. 8vo.*
(From the "Revue Internationale.")
- Railway passenger duty. Public meeting at the City Terminus Hotel, Cannon Street, London, March 16th, 1875. *Tract. 8vo. vol. .* *Lond. 1875. 8vo.*
- Railway Reform, its expediency and practicability considered. With a copious appendix, containing a description of all the railways in Great Britain and Ireland; fluctuations in the prices of shares; statistical and parliamentary returns, *etc.* *Tract. 8vo. vol. 470.* *Lond. 1843. 8vo.*
- — 3rd edition. *Tract. 8vo. vol. 77.* *Lond. 1844. 8vo.*
- Railway Traveller's reasons for adopting uniformity of gauge, addressed to I. K. Brunel, Esq. 3rd edition. *Tract. 4to. vol. 36.* *Lond. [1846 ?] 4to.*

- ANONYMOUS. The Railway War. Competition, combination, or regulation? *Tract. 8vo. vol. 347.* *New York, 1881. 8vo.*
(From the "New York Times.")
- Railways. [Various newspaper cuttings.] folio.
- Railways compared with Canals and Common Roads, and their uses and advantages explained . . . by C. M. *Tract. 8vo. vol. 201.*
Edinburgh, 1825. 8vo.
- Railways, their uses and management. *Tract 8vo. vol. 228.*
Lond. 1842. 8vo.
- Recueil de planches sur les sciences, les arts libéraux et les arts mécaniques ; avec leur explication. [3rd edition.] 2 vols.
Livourne, 1771-72. folio.
- Relatorio ácerca da arborisação geral do paiz.
Lisboa, 1868. 8vo.
- Remarks on an arrangement of a Marine Engine, embodying important improvements in working when going at reduced speeds. With a description and plate of the three-cylinder disconnecting marine engine for the Russian ironclad "Nicolas I." *Tract. folio. vol.*
Lond. [1888?] folio.
- Remarks on the comparative merits of cast metal and malleable iron Railways ; and an account of the Stockton and Darlington railway, and the Liverpool and Manchester railway, etc. (Appendices.)
Newcastle, 1832. 8vo.
- Remarks on the expedience and utility of improving the Waste Lands in the Kingdom. *Tract. 8vo. vol. 489.*
Norwich, 1787. 8vo.
- Remarks on the maintenance of Macadamized Roads. By J. F. B. *Tract. 8vo. vol. 311.*
Dublin, 1843. 8vo.
- Report on Railways. *Tract. 8vo. vol. 1. Liverpool, 1824. 8vo.*
(Imperfect, wanting all after p. 36.)
- A report on the Sanitary Condition of the Army, particularly during the late war with Russia. By a Non-Commissioner. *Tract. 8vo. vol. 182.*
[1860?] 8vo.
- Retrospect of philosophical, mechanical, chemical, and agricultural discoveries : being an abridgement of the periodical and other publications, English and foreign, etc. 6 vols.
Lond. 1806-11. 8vo.
- The Revival of British Industries. *Tract. 8vo. vol. 412.*
Lond. 1885. 8vo.
- Révolution destinée à changer la face du monde, proposée ouvertement. Par un Agitateur. *Tract. 8vo. vol. 53. Lond. 1841. 8vo.*
- Roads. [Surveys.] [1800?] folio.
- Roads and Railroads : vehicles and modes of travelling of ancient and modern countries. *Lond. 1839. 8vo.*
- Rough notes of a course of lectures on apparatus used in Military Telegraphy and firing mines. *Chatham, 1877. folio.*
(Delivered before the School of Military Engineering.)

- ANONYMOUS. Rough notes of eleven lectures on the use of certain Electrical Apparatus. *Tract. Folio. vol. 19.* [1875?] folio.
- Rudimentary and practical instructions on the science of Railway Construction, etc. *Lond. 1866. 8vo.*
- Rudiments of ancient Architecture. 5th edition. *Lond. 1821. 8vo.*
- The Ruthven hydraulic Propeller versus the Screw and Paddle. *Tract. 8vo. vol. 183.* *Lond. 1869. 8vo.*
- A Sanitary Crusade through the East and Australasia. [By R. Boyle.] *Lond. 1892. 8vo.*
- Sanitary Legislation. Session 1887. *Tract. 8vo. vol. 426.* [1888?] 8vo.
- Sanitary Reform and sanitary reformers; for the information of Metropolitan vestries and local boards of health, with an appendix of the Metropolitan Local Management Act abridged. *Tract. 8vo. vol. 109.* *Lond. 1855. 8vo.*
- Sanitary Siftings; or, Results of Sewage Systems compared. By a Naval Officer. *Tract. 8vo. vol. 203.* *Lond. 1868. 8vo.*
- The Scheme delivered to the Members of the Hon. House of Commons for raising £60,000, to build a bridge after the manner of that at Thoulouse. By a Private Gentleman. *Tracts. folio. vol. 11.* [] folio.
- A scheme for the effectual Drainage of Towns, etc. *Tract. 8vo. vol. 24.* *Lond. 1855. 8vo.*
- A Scheme of Prices for performing mast-makers' work (boat builders' work; capstan, top, and pump-makers' work; caulkers' work; smiths' work; joiners' and house carpenters' work; wheel-wrights', turners', and screw-cutters', and oar and tree-nail makers' work; stonemasons' and bricklayers' work; painters' and glaziers' work; sawyers' work; scavemen and labourers' work; and sail-makers' work by task and job). Nos. 3-13, and 15. *Lond. 1829. folio.*
- A scheme to secure and extend the Credit and Strength of the British nation. *Tract. 8vo. vol. 33.* *Lond. 1742. 8vo.*
- The Shell Trials at Shoeburyness. *Tract. 4to. vol. 81.* (Reprinted from *The Times.*) *Lond. 1878. 4to.*
- Ships and Railways. *Tract. 8vo. vol.* *Lond. 1846. 8vo.*
- A short description and explanation of the advantages arising from the use of Patent Wooden Block Pavement, etc. By Viator. *Tract. 8vo. vol. 201.* *Lond. 1839. 8vo.*
- A short treatise of the Description of the Sector. *Tract. 8vo. vol. 219.* *Lond. 1697. 8vo.*
- Situation générale des chemins de fer du globe au 31 Décembre, 1860, avec un supplément pour l'année 1861. 1862. folio. (Lithographed.)
- Snowstorms of January 17th to 21st, 1881. *Tract. 8vo. vol. 418* (From "Symons' Monthly Meteorological Magazine.") [1881.] 8vo.

- ANONYMOUS. Der sogenannte Deutsche Rhein-See Canal von Sachverständigen beleuchtet. *Papenburg*, 1888. 4to.
- Solution of problems relative to Protection and Free Trade. [By J. Du Mesnil-Marigny.] *Tract. 8vo. vol. 137.* [*Paris*, 1860 ?] 8vo.
- Spectacle de la nature ; or nature displayed. Translated from the French [of A. N. de la Pluche] by S. Humphreys. 7 vols. *Lond.* 1744–53. 8vo.
- Statement of proportionate weights, capacities, and bearing powers of Wagons on several lines. *Tract. 4to. vol. 66.* [1870 ?] 4to.
- Statements illustrative of the position and prospects of Steam Navigation in 1840. *Tract. 8vo. vol. 55.* *Lond.* 1840. 8vo.
- The Stresses in statically indeterminate Structures. *Tract. fol. vol. 47.* *Calcutta*, [1892.] folio.
(Reprinted from "Indian Engineering.")
- The student's guide to the Locomotive Engine ; being a description of the different modes of constructing locomotives, etc. *Lond.* 1849. 8vo.
- The submarine Propeller, or Archimedian Screw. *Tract. 8vo. vol. 201.* [*Lond.*] 1846. 8vo.
- Stone : [a lecture delivered before the School of Military Engineering, Chatham, by H. W.] *Tract. 8vo. vol. 293.* [*Chatham*, 1873 ?] 8vo.
- Sugar Industry. Articles from "The South Illustrated." *Tract. Folio. vol. 41.* *New Orleans*, 1887. folio.
- Suggestions for the utilization of Sewage, having special regard to sanitary requirements. *Tract. 8vo. vol. 232.* *Lond.* 1873. 8vo.
- Suggestions to the promoters and members of Friendly Societies. *Tract. 8vo. vol. 100.* *Lond.* 1852. 8vo.
- The Sun and Planet instrument. A mechanical illustration of the position, motions, planes of motion, and attendant relations of the sun and planets of our solar system. [By Horatio Allen ?] *Tract. 8vo. vol. 449.* [1875 ?] 8vo.
- The Surveyor's main Road Account-book. 4th edition. *Tract. 4to. vol. 89.* *Lond.* [1880 ?] 4to.
- Syllabus of an elementary system of Astronomy. *Tract. 8vo. vol. 504.* [*Cambridge* ?] 8vo.
- Table for determining the apparent Time from observed altitudes of the sun or a star. *Tract. 8vo. vol. 26.* *Paris*, 1818. 8vo.
- Table of the Bearings of the Sun, between the parallels of 14° and 20° south, at intervals of twenty minutes, from April to August. *Tract. 8vo. vol. 103.* *Lond.* 1858. 8vo.
- Tableau des dépenses faites pour la construction du chemin de Tours à Bordeaux. *Tract. folio. vol. 11.* *Paris*, 1855. folio.
(Lithographed.)

- ANONYMOUS.** Tableau des monnaies d'or et d'argent des principaux états du monde, avec leur valeur en francs, leur poids, leur titre, et des instructions sur le système monétaire, les monnaies de compte et les poids usuels de chaque pays. Par J. L. *Tract. 8vo. vol. 119. Paris, [1845?] 8vo.*
- Terra-cotta Lumber, what it is and how it can be used, *etc. Tract. Folio. vol. 47. Boston, 1891. folio.*
- Tesoro de las tres lenguas, española, francesa, y italiana. *Genève, 1571. 8vo.*
- Text-book on the theory of the Motion of Projectiles, &c. *Lond. 1877. 8vo.*
- The theory and practice of Warming and Ventilating public buildings, dwelling-houses, and conservatories; including a general view of the changes produced in atmospheric air, by respiration, combustion, and putrefaction, *etc.* (By an Engineer.) *Lond. 1825. 8vo.*
- Thoughts on Railways and projected Railways. By Observer. *Tract. 8vo. vol. 179. Liverpool, 1833. 8vo.*
- Thoughts on Steam Locomotion, with hints for economizing fuel in steam vessels. *Tract. 8vo. vol. 201. Lond. 1840. 8vo.*
- Three Letters to the Inhabitants of Manchester on the Exportation of Cotton Twist. By Mercator. *Manchester, 1800–03. 8vo.*
- Tides. [The article "Tides": reprinted from the Supplement to the Encyclopædia Britannica.] [? Dr. W. Whewell.] *Tract. 4to. vol. 27. [Lond. 1824.] 4to.*
- The Tides. [By W. Parkes.] *Lond. 1857. 8vo.*
- Tonnage Table [for Canals]. *Tract. 8vo. vol. 93. [1790?] 8vo.*
- The Tower (high level) Bridge: an imperial question. By "Aquarius." *Tract. 8vo. vol. 309. Lond. 1878. 8vo.*
- Die Torpedos. Von einem Ingenieur-Offizier. *Tract. 8vo. vol. 271. Berlin, 1868. 8vo.*
- Die Torpedos und Seeminen in ihrer historischen Entwicklung bis auf die neueste Zeit. *Tract. 8vo. vol. 312. Berlin, 1878. 8vo.*
- Traité des moyens de rendre les rivières navigables. Avec plusieurs desseins de jettées, ponts à rouleaux et rampans, écluses, soutiens, digues, coffres pour bâtir sous l'eau, et autres machines dont on se sert en Hollande et ailleurs, pour remédier aux obstacles qui s'opposent à la navigation des rivières, et pour approfondir les canaux et curer les ports. Où il est aussi parlé des moyens de retirer les bâtimens coulez à fond, et d'en sauver les marchandises, *etc.* [By — Bouillet.] *Amsterdam, 1696. 8vo.*
- Les tramways. Historique—traction animale—traction mécanique, *etc.* *Tract. 8vo. vol. 283. Paris, [1876.] 8vo.*
- Transmission de la force motrice par câbles métalliques. [By El, ingénieur.] *Tract. 8vo. vol. 340. Paris, [1860?] 8vo.*

- ANONYMOUS. Les traverses métalliques. Par un ancien Ingénieur Directeur de chemins de fer. *Tract. 8vo. vol. 404.*
Bruxelles, 1886. 8vo.
- A treatise concerning the true method of finding the proper Area of the Sails for ships of the line, and from thence the length of masts and yards. [By F. H. f.c.] *Tract. 8vo. vol. 72.*
Lond. 1749. 8vo.
- A treatise on the construction of Roofs, as regards carpentry and joinery, deduced from the works of Robison, Price and Tredgold.
Lond. [1868.] 8vo.
- Treatise on the manufacture of Guns, and text-book of service ordnance. 3rd edition. *Lond. 1886. 8vo.*
- Truth in extremis: a plea against the murder of science by the gold poison. By a Searcher. *Tract. 8vo. vol. 267.*
Oxford, 1876. 8vo.
- Two letters on Fenianism. By an Irish Protestant. *Tract. 8vo. vol. 167.*
1866. 8vo.
- The Vacuum continuous automatic Brake, with universal coupling.
Lond. 1885. 4to.
- Vitrified *versus* porous Drain Pipes. *Tract. 8vo. vol. 217.*
Lond. 1856. 8vo.
- A Voice from the Signal-Box: or, Railway Accidents and their causes. By a Signaller. *Tract. 8vo. vol. . Lond. 1874. 8vo.*
- Vues générales sur l'entretien des routes. Par un amateur [C. A. J. Dumas]. *Tract. 8vo. vol. 74. Le Mans, 1840. 8vo.*
- The Waste of Water in town supplies. *Tract. 4to. vol. 104.*
Lond. 1886. 4to.
- What system of communication between Passengers, Guards, and Drivers ought to be adopted on our Railways? By One who believes a detached or independent system (of Communication) must in the end be adopted on all Railways. *Tract. 8vo. vol.*
Manchester, 1870. 8vo.
- What will Parliament do with the Railways? *Tract. 8vo. vol. 201.*
Lond. 1836. 8vo.
- Whole measures *v.* half-measures; or, rail transit *v.* river transit to India. By an Old Indian. *Tract. 8vo. vol. 184.*
Lond. 1856. 8vo.
- Why Tariffs are not maintained. 2 pt. *Tract. 8vo. vol. 347.*
1881. 8vo.
- Wooden Floors. *[1885?] 8vo.*
- The Woolwich system of rifled Ordnance. *Tract. 8vo. vol. 424.*
Lond. 1878. 8vo.
- Working-man's companion. The Results of Machinery. (Capital and labour.) 2 vols. *Lond. 1831. 12mo.*
- The World's Highway. *Tract. 8vo. vol. 320.*
Lond. 1856. 8vo.

- ANSELL, C. A treatise on Friendly Societies, *etc.*
Lond. 1835. 8vo.
- ANSELL, G. F. A treatise on Coining. *Lond.* 1862. 8vo.
- The Royal Mint: its working, conduct and operations . . .
with suggestions, *etc.* *Lond.* 1870. 4to.
- ANSIAUX, L., and MASON, L. Traité pratique de la fabrication du
fer et de l'acier puddlé . . . Nouveau tirage. *Paris*, 1865. 8vo.
- ANSLEY, G. D. Report of the City Surveyor, of the various works
executed by the Road department, city of Montreal, during 1876.
Tract. 8vo. vol. 270. *Montreal*, 1877. 8vo.
- Report on permanent Roadway Pavements for the city of
Montreal. *Tract.* 8vo. vol. 351. *Montreal*, 1882. 8vo.
- ANSPACH, L. Le rôle de l'eau dans les cylindres à vapeur, *etc.*
Tract. 8vo. vol. 529. *Liège*, 1892. 8vo.
- ANSTED, D. T. The Applications of Geology to the arts and manu-
factures. *Lond.* 1865. 8vo.
- An elementary course of Geology, Mineralogy, and Physical
Geography. *Lond.* 1850. 8vo.
- The Goldseeker's Manual. *Lond.* 1849. 8vo.
- On the absorbent power of Chalk, and its water contents under
different conditions. *Tract.* 8vo. vol. 501. *Lond.* 1851. 8vo.
(From Min. Proc. Inst. C.E.)
- On the decay and preservation of Building Materials. *Tract.*
8vo. vol. 137. *Lond.* 1860. 8vo.
- Physical Geography. 3rd edition. *Lond.* 1868. 8vo.
- Scenery, Science, and Art; being extracts from the note-book of a
geologist and mining engineer. *Lond.* 1854. 8vo.
- Water and Water Supply, chiefly in reference to the British
islands. Surface waters. *Lond.* 1878. 8vo.
- ANSTIE, J. The coalfields of Gloucestershire and Somersetshire and
their resources. *Lond.* 1873. 8vo.
- ANSTRUTHER. Correspondence relating to Anstruther Harbour.
Lond. 1871. folio.
- ANSTRUTHER, P. An attempt to deduce initial velocity from
given range, elevation, and time of flight. *Tract.* 8vo. vol. 168.
Lond. 1860. 8vo.
- Gunnery. [Notes for lectures.] *Tract.* 8vo. vol. 131.
[1861.] 8vo.
- The Flight of Projectiles. *Tract.* 8vo. vol. 168.
Lond. 1866. 8vo.
- On the Trajectory of a Projectile. (Appendices.) *Tract.* 4to.
vol. 68. 1868. 4to.
- Table showing the fall by Gravity in the atmosphere. *Tract.* 8vo.
vol. 212. *Edinburgh*, 1866. 8vo.
- Theory of Gunnery. *Tract.* 8vo. vol. 206. *Lond.* 1871. 8vo.

- ANTHRACITE Patent Company. Prospectus and reports. *Tract.*
4to. vol. 68. *London*. 1840. 4to.
- ANTHRACITE, S.S. Report on the Machinery of the Steamer
"Anthracite." *Tract.* 8vo. vol. . *Washington*, 1880. 8vo.
(Official Report.)
- ANTHROPOLOGICAL SOCIETY of London. Memoirs. 3 vols.
London. 1865-70. 8vo.
- ANTI-CORN-LAW CONFERENCE. Report of the statistical
committee, 1842. *Tract.* 8vo. vol. 69. *London*. [1842.] 8vo.
- ANTINORI, V. Archivio meteorologico centrale italiano nell' I. E. R.
Museo di Fisica e Storia Naturale. Prima pubblicazione.
Firenze, 1858. 8vo.
- ANTISELL, T. The manufacture of Photogenic or Hydro-carbon
Oils, from coal and other bituminous substances, etc.
New York and London. 1860. 8vo.
- ANTOINE, C. Chaleur totale des vapeurs. *Tract.* 8vo. vol. 517.
[*Paris*, 1892.] 8vo.
- De la densité et de la compressibilité des gaz et des vapeurs.
Tract. 4to. vol. 98. *Lorient*, 1886. 4to.
- Deux applications du calcul de résistance des matériaux.
Rivetage des carènes en fer. Fatigue d'un solide infléchi. *Tract.*
4to. vol. 91. *Brest*, 1882. 4to.
- Du coefficient de dilatation des gaz et des vapeurs sous pressions
constantes. *Tract.* 4to. vol. 98. *Lorient*, 1885. 4to.
- Relation entre le volume, la pression et la température de diverses
vapeurs. *Tract.* 4to. vol. 113. *Brest*, 1890. 4to.
- Sur l'équation caractéristique de diverses vapeurs. *Tract.* 4to.
vol. 118. *Paris*, 1892. 4to.
- Sur l'équation caractéristique de la vapeur d'eau. *Tract.* 4to.
vol. 118. [*Paris*, 1892.] 4to.
- Sur les variations de température des gaz et des vapeurs qui
conservent la même quantité de chaleur, sous des tensions
différentes. *Tract.* 4to. vol. 108. *Paris*, 1888. 4to.
- Tensions des vapeurs. *Tract.* 8vo. vol. 517. *Paris*, 1891. 8vo.
- Variation de température d'un gaz ou d'une vapeur qui se com-
prime ou se dilate, en conservant la même quantité de chaleur.
Tract. 4to. vol. 108. *Paris*, 1887. 4to.
- Variations de température d'une vapeur comprimée ou dilatée,
en conservant la même chaleur totale. (MS.) *Tract.* folio.
vol. 41. *Brest*, 1886. folio.
- Volume, chaleur totale, chaleur spécifique des vapeurs saturées.
(MS.) *Tract.* Folio. vol. 40. *Brest*, 1886. folio.
- ANTONI, A. V. P. D'. A treatise on Gunpowder ; a treatise on fire-
arms ; and a treatise on the service of artillery in time of war.
Translated from the Italian. *London*. 1789. 8vo.

- ANTWERP.**—*Exhibition of 1885. Rapport du Comité de l'industrie, etc.* *Bruzelles, 1887. 4to.*
- *Rapports des membres du jury international des récompenses. 6 vols.* *Bruzelles, 1886–87. 8vo.*
- *Société commerciale, industrielle, etc. Mouvement commercial, industriel et maritime de la place d'Anvers. Exercices 1877–79.* *Anvers, 1878–80. 8vo.*
- APEDALE CANAL.** *Act for Canal from Apedale to Newcastle-under-Lyme.* *Lond. 1775. folio.*
- APEDALE COLLIERY.** *Report on Explosion, June 20, 1885.* *Lond. 1885. folio.*
- APJOHN, J.** *Manual of the Metalloids.* *Lond. 1864. 12mo.*
- *On the value of the numerical coefficient, in the formula for the force of aqueous vapour in the atmosphere. Tract. 8vo. vol. 189.*
(From the "Philosophical Magazine.") *Lond. [1845?] 8vo.*
- APPLEBY BROTHERS.** *Illustrated handbook of Machinery and Ironwork, with the cost, the working expenses, and results obtained, &c.* *Lond. 1869. 8vo.*
- — *3rd edition. 3 vols.* *Lond. 1877–78. 8vo.*
- APPLEDORE HARBOUR.** *Reports on the Harbours of Appledore, Bidford, and Barnstable, Admiralty Harbour Dep. Tract. folio. vol. 27.* (Pub. by the Admiralty.) *[Lond. 1848.] folio.*
- APPLEGATH, A.** *A letter to Alfred Russell, Esq., chairman of the Board of Health. Tract. 8vo. vol. 115.* *Dartford, 1853. 8vo.*
- APPLEGARTH, F., Maj.-Gen.** *Indian rivers; how to form reservoirs on them to provide irrigation, and to render some of them navigable for eight months out of the twelve. Tract. folio. vol. 30.* *Lond. 1881. folio.*
- APPLETON, D.** *Appleton's Cyclopædia of applied Mechanics. See BENJAMIN, P.*
- *Appleton's Cyclopædia of drawing, designed as a text-book for the mechanic, architect, engineer, and surveyor . . . Enlarged edition.* *New York, 1869. 8vo.*
- *Appleton's Dictionary of Machines, mechanics, engine-work, and engineering. 2 vols.* *New York, 1857. 8vo.*
- *European Guide-Book for English-speaking travellers . . . 28th edition. 2 vols.* *New York, 1891. 8vo.*
- APPLETON, H. D.** *Rural Sanitary Authorities, etc. Tract. 8vo. vol. 520.* *Lond. 1887. 8vo.*
- ARAGO, F.** *Cœuvres complètes publiées . . . sous la direction de M. J. A. Barral. 17 vols.* *Paris, 1854–62. 8vo.*
- *Filtrations publiques et particulières. Notice. Rapport de M. Arago et décision de l'Académie des sciences. Tract. 4to. vol. 68.* *Paris, [1857.] 4to.*
- *Historical éloge of James Watt. Translated from the French.* *Lond. 1839: 4to.*

- ARAGO, F.—*continued*. Leçons d'astronomie professées à l'Observatoire royal. 4^e édition. Paris, 1845. 12mo.
- ARAMBURU, F. Examen microscópico del trigo y de la harina. Tract. 8vo. vol. 408. Madrid, 1883. 8vo.
- Molineria y panaderia en Alemania. Tract. 8vo. vol. 408. Madrid, 1885. 8vo
- Motores de viento. Descripcion de los sistemas modernos Americanos. Madrid, 1888. 8vo.
- ARBROATH, *Burgh of*. Memorial by the Magistrates and Town-Councils of the Royal Burghs of Arbroath and Forfar; submitted to the consideration of the Honourable the Freeholders, Justices of the Peace, and Commissioners of Supply of the County of Forfar. Tract. 4to. vol. 7. Forfar, 1824. 4to.
- ARCET, J. P. J. d'. Instruction relative à l'art de l'affinage. Tract. 4to. vol. 68. Paris, 1827. 4to.
- ARCHÆOLOGICAL INSTITUTE of Great Britain and Ireland. Proceedings . . . April 7, May 5, and June 2, 1848. Tract. 8vo. vol. 86. [Lond. 1848.] 8vo.
- ARCHER, T. A letter to the . . . Earl of Hardwicke, on the use of the under-excavating or steam dredging engine in deepening the rivers in the Bedford Level; with observations on the effects of the Eau-Brink cut, etc. Tract. 8vo. vol. 159. Ely, 1829. 8vo.
- ARCHER, W. H. Abstracts of English and colonial patent specifications relating to the Preservation of Food, &c. (Supplement.) 2 pts. Tract. 8vo. vol. 195. Melbourne, 1870. 8vo.
- Statistical notes on the progress of Victoria (1835–60). First series. Tract. 4to. vol. 31. Melbourne, 1861. 4to.
- The statistical register of Victoria, from the foundation of the colony; with an astronomical calendar for 1855. Melbourne, 1854. 8vo.
- ARCHIBALD, C. D. Two letters . . . to the Duke of Newcastle on the importance and necessity of carrying out the Intercolonial and Atlantic and Pacific Railways continuously through the British North-American Possessions. Tract. 8vo. vol. 439. Lond. 1860. 8vo.
- ARCHITECTURAL MUSEUM. See ROYAL ARCHITECTURAL MUSEUM.
- ARCHITECTURAL PUBLICATION SOCIETY. Dictionary of Architecture. 8 vols. Lond. [1853]–92. folio.
- ARCHITECTURAL SOCIETY, London. Essays. 2 vols. Lond. 1808–10. 8vo.
- ARCHITECTURAL TILE COMPANY. Prospectus and descriptive Statement of the Architectural Tile Company's Patent Roofing and Facing Tiles, and of Dampier's patent concentric press machine. Tract. 8vo. vol. 84. Lond. [1840?] 8vo.

ARCHITEKTEN- UND INGENIEUR-VEREIN ZU HANNOVER. Die Feier des zehnjährigen Stiftungsfestes . . . 1861.
Tract. 8vo. vol. 476. Hannover, 1861. 8vo.

— Die Kunst im Gewerbe. Vols. 1–6. *Hannover, 1872–77. folio.*

— Notizblatt. Vols. 1–3. *Hannover, 1851–54. 4to.*

— Zeitschrift. Vol. 1, (2, etc.). *Hannover, 1855, etc. folio.*

ARCHITEKTEN- UND INGENIEUR-VEREIN für Niederrhein und Westfalen. Cölner Thorburgen und Befestigungen.

Cöln, 1884. folio.

— Köln und seine Bauten. *Köln, 1888. 8vo.*

— Notizblatt. 2 vols. *Cöln, 1876–77. 4to.*

— Protokoll der 11. Hauptversammlung am Samstag den 21 Januar, 1882. *Tract. 8vo. vol. 476. Köln, 1882. 8vo.*

ARCHITEKTEN- UND INGENIEUR-VEREIN in Böhmen. Mittheilungen. Vols. 9–17. *Prag, 1874–82. 4to.*

[Continued as:] Szprávy spolku Architectie a Inženýrů v kralovstvi českém. *Praze, 1883, etc. 4to.*

ARCHITEKTEN-VEREIN ZU BERLIN. Berlin und seine Bauten. *Berlin, 1877. 8vo.*

— Architektonisches Album, redigirt vom Architekten-Verein zu Berlin. Vols. 1–3. *Potsdam, 1838, 39. folio.*

ARCHITEKTŮ a Inženýrů v Království Českém. *See supra, ARCHITEKTEN- UND INGENIEUR-VEREIN IN BÖHMEN.*

ARDEER. Report on an Explosion which occurred in the Factory of Nobel's Explosives Co., Ardeer, 8 June, 1882, by Capt. J. P. Cundill, R.A. *Lond. 1882. folio.*

— Report on the circumstances attending an Explosion at a Cartridge Hut, Ardeer. *Lond. 1884. folio.*

ARDROSSAN. Act for Ardrossan Harbour. *Lond. 1805. folio.*

ARGENTINE REPUBLIC. Letters concerning the country of the Argentine Republic. *Tract. 8vo. vol. 176. Lond. 1869. 8vo.*

— [*Congreso Nacional.*]

1. Diario de sesiones de la Cámara de Diputados, 1884–88. 10 vols. *8vo. Buenos Aires, 1885–89. 8vo.*

2. Diario de sesiones de la Cámara de Senadores, 1884–87. 4 vols. *4to. Buenos Aires, 1885–88. 4to.*

3. Memoria de relaciones exteriores presentada al Congreso Nacional, 1884–87. 4 vols. *8vo. Buenos Aires, 1884–87. 8vo.*

4. Memoria del Departamento de Hacienda, 1884–86. 6 vols. *8vo. Buenos Aires, 1885–87. 8vo.*

5. Memoria presentada al Congreso Nacional de 1884–90 por el Ministro de Justicia, Culto é Instrucción pública, 1884–90. 15 vols. *8vo. Buenos Aires, 1884–90. 8vo.*

6. Registro Nacional de la República Argentina, 1884–90. 12 vols. *8vo. Buenos Aires, 1885–89. 8vo.*

- ARGENTINE REPUBLIC**—*continued*.—[*Engineering, etc.*] Memoria . . . sobre los trabajos ejecutados durante los años de 1876–83. [Departamento de ingenieros civiles.] 2 vols. Buenos Aires, 1879–84. 8vo.
- [Another copy.] 1876–78 (and 1880). Buenos Aires, 1879–81. 8vo.
- [*Finance.*] Informe del presidente del credito publico, etc. Buenos Aires,
- [*Mines.*] Departamento de obras publicas—Seccion de Minas. Informe del primer año 1885. Buenos Aires, 1886. 8vo.
- [*Public Works.*] Memoria del Departamento de obras publicas de la nacion. 1884. Buenos Aires, 1885. 8vo.
- [*Railways.*] Departamento de Ingenieros Civiles. Ferro-Carril Andino. Seccion de San Luis á la Paz y Mendoza, etc. Buenos Aires, 1884. 8vo.
- Estudio de la prolongacion del ferro-carril Andino: seccion de Villa Mercedes á San Luis. Buenos Aires, 1881. 8vo.
- Ferro-carril Central del Norte. Ramal á Santiago del Estero. Informe general del proyecto con las especificaciones, analisis de precios, etc. Buenos Aires, 1882. 8vo.
- Ferro-carril Central Norte. Seccion de Tucumán á Metán: informe general del proyecto con las especificaciones, análisis de precios, etc. Buenos Aires, 1885. 8vo.
- Memoria sobre ferro-carriles nacionales, etc. [Departamento de Ing. Civ.] Buenos Aires, 1883. 8vo.
- Memoria sobre ferro-carriles nacionales y estado de valores, al 30 de Junio de 1883. Buenos Aires, 1883. 8vo.
- Ramal á La Rioja y Catamarca. Seccion segunda, de Chumbicha á La Rioja. Informe general, etc. Buenos Aires, 1883. 8vo.
- [*Weights and Measures.*] Sistema de medidas y pesas de la Republica Argentina. Buenos Aires, 1881. 8vo.
- Sistema de medidas y pesas de la Republica Argentina. Rectificacion de las medidas de longitud y de superficie de la provincia de Tucuman. Buenos Aires, 1883. 8vo.
- ARGYLL, Duke of** [George Douglas CAMPBELL]. His Grace the Duke of Argyll on Indian Public Works and Coopers Hill College. A reply, with correspondence between the Duke of Argyll and the President of the Institution of Civil Engineers. Tract. 8vo. vol. 338. Lond. 1882. 8vo.
- ARKANSAS SOCIETY OF ENGINEERS**, Architects and Surveyors. Transactions. Vol. I. Little Rock, 1887. 8vo.
- ARKLOW**. Reports to the Lord Lieutenant of Ireland regarding Arklow Harbour. Dublin, 1886. folio.
- Further Correspondence. Dublin, 1886. folio.
- ARMENGAUD, C.** Formulaire de l'ingénieur. Paris, 1865. 8vo.
- Installation et exploitation des lignes téléphoniques. Tract. 8vo. vol. 328. Paris, 1881. 8vo.

ARMENGAUD, C. L'ouvrier-mécanicien. Guide de mécanique pratique, précédé des notions élémentaires d'arithmétique décimale, d'algèbre et de géométrie indispensables pour l'intelligence et la solution des diverses applications qui y ont rapport. Avec tables et calculs. 8^e édition. *Paris*, 1867. 8vo.

— See also ARMENGAUD, J. E. and C., and AMOUROUX.

ARMENGAUD, C. E. See ARMENGAUD, J. E. Publication industrielle des machines outils, etc. [Continued by C. E. Armengaud.] 1876, etc.

ARMENGAUD, J. E. Métallurgie : préparations . . . fonte, fer, acier, forgeage, fonderie, etc. *Paris*, [1882.] folio.

— Publication industrielle des machines outils, et appareils les plus perfectionnés et les plus récents employés dans les différentes branches de l'industrie française et étrangère. [Continued after vol. 23 by C. E. Armengaud.] 28 vols. (Atlas of plates with each vol.) *Paris*, 1847-82. 8vo.

(Vol. 1, 4th edition ; Vols. 2, 3, 4, 3rd edition.)

— Traité pratique des moteurs hydrauliques et à vapeur. *Paris*, 1844. 8vo.

— Traité théorique et pratique des moteurs à vapeur. 2 vols. *Paris*, 1861-62. 4to.

— Le Vignole des mécaniciens : essai sur la construction des machines, études des éléments qui les constituent, types et proportions des organes qui composent les moteurs, les transmissions de mouvement et autres mécanismes. (Atlas of plates.) 2 vols. *Paris*, 1863-65. 4to.

ARMENGAUD, J. E., and C. Le génie industriel, etc. 1851-71. See PERIODICAL PUBLICATIONS.

ARMENGAUD, J. E. and C., and AMOUROUX. Études complètes d'ombres et de lavis appliquées au dessin de machines et d'architecture, ou recueil méthodique de planches teintées, coloriées et lavées à l'effet formant un atlas de luxe avec un texte spécial et très étendu. *Paris*, 1849. folio.

— Nouveau cours raisonné de dessin industriel appliqué principalement à la mécanique et à l'architecture. *Paris*, 1860. 8vo.

— The practical Draughtsman's Book of Industrial Design : forming a complete course of mechanical engineering and architectural drawing. Translated from the French . . . Re-written and arranged, with additional matter and plates . . . by W. Johnson. *Lond.* 1853. 4to.

ARMIT, R. H., Lt. The Wind in his Circuits, with the explanation of the origin . . . of circular storms and equinoctial gales. *Lond.* 1870. 8vo.

ARMOUR, J. Angus and Mack on the Air path. *Tract.* 8vo. vol. 269. *Greenwich*, [1877 ?] 8vo.

— Iron and Heat. 2nd edition. *Lond.* 1874. 8vo.

— Power in Motion. 2nd edition. *Lond.* 1875. 8vo.

— The Winged Aerostat. *Tract.* 8vo. vol. 414. *Lond.* 1885. 8vo.

- ARMOUR, J.—*continued*. *Voices in the Air. Tract. 8vo. vol. 295. Greenwich, [1878?] 8vo.*
- ARMSTRONG, G. F. *A lecture on the progress of higher Technical Instruction at home and abroad. Tract. 8vo. vol. 414. Edinburgh, 1885. 8vo.*
- *Inaugural lecture of the Department of Practical Science in McGill University, Montreal. Tract. 4to. vol. 69. Montreal, 1872. 4to.*
- ARMSTRONG, H. E. *Address delivered as vice-president of the Junior Engineering Society, on relation of Chemistry to Engineering. Tract. 8vo. vol. 448. Lond. 1887. 8vo.*
- *Report on the Water-Supply of Newcastle-upon-Tyne, etc. 1884. See LAWS, W. G., and ARMSTRONG, H. E.*
- ARMSTRONG, J., *Col.* *Report, with proposals for draining the fens and amending the harbour of Lynn. Tract. 4to. vol. 54. 1724. 4to.*
- ARMSTRONG, R. *Chimneys for furnaces, fire-places, and steam-boilers. An essay, etc. Tract. 8vo. vol. 211. Lond. 1866. 8vo.*
- *The construction and management of Steam-Boilers. 5th edition. Lond. 1866. 8vo.*
- *An Essay on the Boilers of Steam Engines, etc. 8vo. New edition. Lond. 1839. 8vo.*
- *High speed navigation and steamship perfection, etc. Tract. 8vo. vol. 111. Lond. 1859. 8vo.*
- *On the mercantile and Admiralty rules for calculating the power of Marine Steam Engines. Tract. folio. vol. 9. Lond. [1870?] folio.*
- *The modern Practice of Boiler Engineering . . . Revised . . . by John Bourne. Lond. 1856. 8vo.*
- ARMSTRONG, W. *An account of tapping and closing the Spring of hot-water, at Mr. Pinch's brewery, Bath; showing the effects produced on the public baths. Tract. 8vo. vol. 78. Bristol, 1838. 8vo.*
- ARMSTRONG, Sir W. G., *Lord.* *Address as President of the Institution of Mechanical Engineers. Newcastle meeting. Tract. 8vo. vol. 178. Newcastle, 1869. 8vo.*
- *The Armstrong Guns. Letter to the Times dated 25 November, 1861. Tract. 8vo. vol. 131. Lond. 1861. 8vo.*
- *The Coal Supply, being the Presidential address of Sir W. G. Armstrong to the members of the North of England Institute of Mining and Mechanical Engineers. Tract. 8vo. vol. 235. Newcastle, 1873. 8vo.*
- *Mechanical Science. Address to the mechanical section of the British Association, 1881. Tract. 8vo. vol. Newcastle-on-Tyne, [1881.] 8vo.*
- *The new Naval Programme. Tract. 8vo. vol. 481. Lond. 1889. 8vo.*

- ARMSTRONG, Lord, and OTHERS.** The industrial resources of the district of the three northern rivers, the Tyne, Wear, and Tees, including the reports on the local manufactures read before the British Association in 1863. With notes and appendices. 2nd edition. *Newcastle-on-Tyne*, 1864. 8vo.
- ARMSTRONG, Lord, LONGBRIDGE, J. A., and RICHARDSON, T.** Three reports on the use of the Steam Coals of the Hartley District of Northumberland in marine boilers. *Tract. 8vo. vol. 111.* *Newcastle-on-Tyne*, 1858. 8vo.
- ARMYTAGE, G. L.** A new table for setting out Curves of any Radius by any system of measurement. *Tract. 8vo. vol. 212.* *London*. 1867. 8vo.
- ARNAL, L.** *Traité de mécanique, etc.* Vols. 1 and 2. [Encyclopédie théorique et pratique des connaissances civiles et militaires.] *Paris*, [1892?] 8vo.
- ARNAO, J. G., and OTHERS.** Memoria sobre los medios de reducir los gastos de primer establecimiento de los ferro-carriles secundarios. 8vo. *Madrid*, 1869. 8vo.
- ARNOLD, J.** An answer to an anonymous letter on the Longitude. *Tract. 4to. vol. 21.* *London*. 1782. 4to.
- Certificates and circumstances relative to the going of Mr. Arnold's Chronometers. *Tract. 4to. vol. 21.* *London*. 1791. 4to.
- ARNOTT, N.** Elements of Physics, or Natural Philosophy, general and medical, explained independently of technical mathematics, etc. 3rd edition. *London*. 1828. 8vo.
- — 4th edition. 2 vols. *London*. 1829. 8vo.
(Part 2, vol. 2, on Astronomy, wanting.)
- — [6th edition.] 2 vols. *London*. 1864-65. 8vo.
- On Warming and Ventilating; with directions for making and using the thermometer-stove . . . and other new apparatus. *London*. 1838. 8vo.
- The Smokeless Fireplace, chimney-valves, and other means, old and new, of obtaining healthful warmth and ventilation. *London*. 1855. 8vo.
- ARNOTT, N., and PAGE, T.** Reports on an inquiry ordered by the Secretary of State, relative to the prevalence of disease at Croydon, and to the plan of sewerage, etc. *London*. 1853. folio.
- ARNTZ, R. R.** The Board of Works for the Westminster district. An attempt to determine the circumstances under which, with a view to economy, Paved and Macadamised Roadways should respectively be formed. *Tract. 8vo. vol. 117.* *London*. 1857. 8vo.
- Report with reference to the working of Steam Rollers upon macadamised roads, and as to other matters connected with the management of the city of Paris. *Tract. 8vo. vol. 153.* *Westminster*, 1866. 8vo.
- AROCENA, C. A.** Anuario hidrográfico del Rio de la Plata para el año 1891. *Montevideo*, 1891. 8vo.

- ARROL, W. [Specification of] Improved Machines for punching and riveting large or heavy Plate Work, *etc.* *Tract.* 4to. vol. 117. *Lond.* 1878. 4to.
- [Specification of] Improvements in the mode of . . . constructing Wrought-iron Girders . . . of large dimensions. *Tract.* 4to. vol. 117. *Lond.* 1877. 4to.
- ARROWSMITH, A. Map of England and Wales. *Lond.* 1815. folio.
- ARROWSMITH, S. An atlas of Ancient Geography, *etc.* *Lond.* 1838. 8vo.
- ARSENE-OLIVIER, A. *See* OLIVIER, A. A.
- ARSON, A. Experiments on the Flow of Gas in long Pipes, made in the works of the Paris Gas Company. Translated from the French. *Tract.* 8vo. vol. 165. *Lond.* 1868. 8vo.
- ARTINGSTALL, S. G. New Rush Street Bridge, Chicago. Brief memoranda of its construction. *Tract.* 4to. vol. 93. *Chicago,* 1884. 4to.
- ARTOM DI S. AGNESE, E., and NICOLI, N. Relazione sui sistemi di ferrovie a dentiera, *etc.* *Roma,* 1892. 8vo.
- ART-UNION of London. Report of the council. *Lond.* 1875. 8vo.
- The Art Union of London and the Board of Trade. Correspondence relative to proposed interference with the Society's plan. *Tract.* 8vo. vol. 86. *Lond.* [1848.] 8vo.
- ARUN, *River.* An Act for the improvement of the navigation of the River Arun. *Lond.* 1785. folio.
- ASH, Dr. J. Oratio anniversaria in theatro Collegii Regalis Medicorum Londinensium, ex Harveii instituto habita, A.D. 1790. *Tract.* 4to. vol. 20. *Londini,* 1790. 4to.
- ASHBURNER, C. A. Coal. *Washington,* 1887. 8vo.
(Abstract from "Mineral resources of the United States.")
- The Geologic relations of the Nanticoke disaster. 1886. *Tract.* 8vo. vol. 454. 1887. 8vo.
- ASHBURY, T. Inaugural address as President of the Manchester Association of Employers, Foremen, and Draughtsmen. *Tract.* 8vo. vol. 395. *Manchester,* 1883. 8vo.
- ASHBY-DE-LA-ZOUCH. Act for Ashby-de-la-Zouch Canal. *Lond.* 1794. folio.
- ASHDOWN and OTHERS. Portfolio of coloured plates and views of various Streets and Railways. *Various dates.* Large folio.
- ASHPITEL, A., and WHICHCORD, J. Baths and Washhouses, *etc.* *Lond.* 1853. 8vo.
- Town Dwellings. An essay on the erection of Fireproof Houses in flats, *etc.* *Lond.* 1855. 8vo.
- ASHTABULA BRIDGE. Report of the joint committee [of Ohio General Assembly] on the Ashtabula disaster. *Tract.* 8vo. vol. 278. *Columbus,* 1877. 8vo.

- ASHWORTH, H. The progress of science and art, as developed in the Bleaching of Cotton. *Tract. 8vo. vol. 219.*
Manchester, 1861. 8vo.
- ASIATIC SOCIETY of Bengal. Asiatic Researches, or Transactions of the Society. 10 vols. *Lond. 1806–11. 8vo.*
- (Bombay branch.) Journal. Vols. 11–17.
Bombay, 1876, etc. 8vo.
- Centenary review from 1784–1883. *Calcutta, 1885. 8vo.*
- Journal. *Calcutta, 1832, etc. 8vo.*
 (After 1886, Part 2 (Nat. Science) only. Vols. 24, 29 and 32 wanting.)
- Proceedings, 1865, etc. *Calcutta, 1866, etc. 8vo.*
- ASKHAM. Askham Iron Furnaces: report on Explosion.
Lond. 1882. folio.
- ASLIT, J. S. H. Decimal Coinage; with a proposal for decimalising our weights and measures, etc. *Tract. 8vo. vol. 168.*
Lond. 1854. 8vo.
- ASPINWALL, W. Waterworks of the city of Providence. *Tract. 8vo. vol. 296.*
Providence, 1874. 8vo.
- ASSAM. See INDIA.—ASSAM.
- ASSOCIAÇÃO DOS ENGENHEIROS CIVIS PORTUGUEZES. Descriptive Catalogue of Albums, etc., exhibited at the Chicago Exhibition, 1893. See CHICAGO.—*Exposition of 1893.*
- Revista de obras publicas e minas. Vol. 1, etc.
Lisboa, 1870, etc. 8vo.
- ASSOCIATION ALSACIENNE DES PROPRIÉTAIRES D'APPAREILS À VAPEUR. Exercice, 1868–69, etc.
Mulhouse, 1869, etc. 8vo.
 (For Exercice, 1877–78–79, see Bulletin de la Société Industrielle de Mulhouse, 1878, page 963.)
- Compte rendu des séances du 9^{me} congrès des ingénieurs en chef, 1884.
Paris, 1886. 8vo.
- ASSOCIATION AMICALE des anciens élèves de l'École Centrale des Arts et Manufactures. Bulletin mensuel, 1875–76, (1876–77, etc.)
Paris, 1876, etc. 8vo.
- Liste des récompenses obtenues par les anciens élèves de l'École centrale à l'Exposition Universelle de 1889. *Tract. 8vo. vol. 490.*
Paris, 1889. 8vo.
- ASSOCIATION DES PROPRIÉTAIRES D'APPAREILS À VAPEUR. Compte-rendu des séances du 9^{me} congrès tenu à Paris les 9, 10, et 11 Novembre, 1884. *Paris, 1886. 8vo.*
- ASSOCIATION DES PROPRIÉTAIRES D'APPAREILS À VAPEUR du Nord de la France. Comptes-rendus.
Lille, 1874–75. 8vo.
- ASSOCIATION FOR OBTAINING A UNIFORM DECIMAL SYSTEM OF MEASURES. See INTERNATIONAL ASSOCIATION.
- ASSOCIATION FOR THE IMPROVEMENT OF GEOMETRICAL TEACHING. Sixth (eighteenth, etc.) general report. *Tract. 8vo. vol.* .
Birmingham, Bedford, 1878, etc. 8vo.

ASSOCIATION FOR THE PREVENTION OF STEAM BOILER EXPLOSIONS, afterwards **MANCHESTER STEAM USERS' ASSOCIATION**. *See* **MANCHESTER STEAM USERS' ASSOCIATION**.

ASSOCIATION FRANÇAISE pour l'avancement des sciences. *Compte-rendus des sessions, 1872, etc. Paris, 1873, etc. 8vo.*

ASSOCIATION GÉODÉSIQUE INTERNATIONALE. Entwurf zu einer mitteleuropäischen Gradmessung. Lithographed. *Berlin, 1861. folio.*

— *Compte-rendu de la conférence géodésique internationale réunie à Berlin, 15–22 Octobre, 1864.*

— — 30 Sept.—7 Oct. 1867. *Tract. 4to. vol. 95. Neuchatel, 1868. 4to.*

— *Protokolle der Verhandlungen der permanenten Commission in Berlin, 1867.*

— — Vienne, 21–28 Sept. 1871. *Tract. 4to. vol. 95. Neuchatel, 1871. 4to.*

— *Protokolle über die Verhandlungen der vierten allgemeinen Konferenz der Europäischen Gradmessung in Dresden, 1874.*

— *Procès-verbal des séances de la Commission permanente. Tract. 4to. vol. 108. 1866. 4to.*

— *Procès-verbaux des séances de la Commission permanente, tenues à Vienne. Tract. 4to. vol. 108. Vienne, 1873. 4to.*

ASSOCIATION OF CHAMBERS OF COMMERCE. Report of Committee appointed to consider the inequalities of Railway Rates. *Tract. 8vo. vol. 340. Wolverhampton, 1872. 8vo.*

— *Reports. Lond. 1887, etc. 8vo.*

ASSOCIATION OF ENGINEERING SOCIETIES. Descriptive Index of current Engineering Literature. 1884–1891 [etc.] *Chicago, [1892, etc.] 8vo.*

— *Journal. Vol. 1, etc. New York, 1881–90. 8vo.*

ASSOCIATION OF FOREMEN ENGINEERS. *See* **LONDON ASSOCIATION**.

ASSOCIATION OF MUNICIPAL AND SANITARY ENGINEERS. *See* **INCORPORATED ASSOCIATION OF MUNICIPAL AND COUNTY ENGINEERS**.

ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. Proceedings of the sixth annual convention. *Washington, 1890. 8vo.*

ASSOCIATION PARISIENNE DES PROPRIÉTAIRES D'APPAREILS À VAPEUR. Bulletin 1875–76. *Paris, 1875–77. 8vo.*

ASSOCIATION POUR PRÉVENIR LES ACCIDENTS DE MACHINES. Comptes rendus. 1867–1884. *Mulhouse, 1873–1885. 8vo.*

[Continued as:]

— **ASSOCIATION POUR PRÉVENIR LES ACCIDENTS DE FABRIQUE**. Comptes rendus. 1884–85 to 1885–87. *Mulhouse, 1886–88. 8vo.*

- ASSOCIATION SCIENTIFIQUE DE FRANCE.** Bulletin mensuel météorologique. Vols. 1-3. *Paris*, 1872-75. 8vo.
- Résumé du Tome III. Par E. Belgrand. *Tract. folio. vol. 34.* *Paris*, 1876. 4to.
- ASTON, W.** Report on the Mount Carbon coal mines, situate in Jackson County, Illinois. *Tract. 8vo. vol. 58.* 1841. 8vo.
- ASTRONOMICAL SOCIETY.** See **ROYAL ASTRONOMICAL SOCIETY.**
- ATALANTA, H.M.S.** Atalanta Committee. Copies of Letters of Admiral Sir Y. Symonds and the Lords Com. Admiralty. *Lond.* 1881. folio.
- Reports (with Minutes of Evidence and Appendices) of the Atalanta Committee. *Lond.* 1881. folio.
- ATCHLEY'S** Civil Engineers' and Contractors' Estimate and Price Book . . . To which is added The Law of Contracts, etc., by W. C. Glen. Part I. *Lond.* [1867?] 8vo.
- ATHENÆUM CLUB.** Catalogue of the library of the Athenæum, with two supplements. 2 vols. *Lond.* 1845-66. 8vo.
- ATHENS.** Mission Française des Ponts et Chaussées. Chemin de Fer du Pirée à Larissa. Avant-projet. (Convention et Cahier des Charges.) 2 pt. *Athènes*, 1884. folio.
- ATHERTON, C.** The Capability of Steam Ships, based on the mutual relations of displacement, power, and speed, etc. *Woolwich*, 1853. 8vo.
- — 2nd edition. *Woolwich*, 1855. 8vo.
- On Marine Engine construction and classification. *Lond.* 1851. 8vo.
- Rapport sur les moyens d'améliorer la navigation de la Dyle, etc. 1832. See **GORDON, A.**, and **ATHERTON, C.**
- ATKINS and Co.** An essay on the relation between the Specific Gravities and the strengths and values of Spirituous Liquors, etc. *Tract. 4to. vol. 25.* *Lond.* 1803. 4to.
- ATKINSON, E.** Report on English Cotton Mills and methods. *Tract. 8vo. vol. 363.* *Boston*, 1883. 8vo.
- Report on the Cotton Manufactures of the United States. [U.S.A. 10th Census. Vol. 2.] *Washington*, 1883. 4to.
- ATKINSON, H.** On Astronomical and other Refractions; with a connected inquiry into the law of temperature in different latitudes and at different altitudes. *Tract. 4to. vol. 15.* *Lond.* 1825. 4to.
- (From Trans. Royal Astronomical Society.)
- ATKINSON, J.** Information from various towns respecting House Drainage, etc. *Tract. folio. vol. 47.* *Stockport*, 1894. folio.
- ATKINSON, J. J.** A practical treatise on the Gases met with in Coal Mines and the general principles of ventilation. *Tract. 8vo. vol. 324.* *Lond.* 1879. 8vo.

- ATKINSON, P. The Electric Transformation of Power, and its application by the Electric Motor: including Electric Railway construction. *Lond. 1894. 8vo.*
- Elements of Static Electricity, with full description of the Holtz and Töpler machines, *etc.* *New York, 1887. 8vo.*
- ATKINSON, W. Beckenham Drain. *Tract. 8vo. vol. 203. Lond. 1870. 8vo.*
- ATKINSON, W. N. and J. B. Explosions in Coal Mines. *Lond. 1886. 8vo.*
- ATLANTIC OCEAN. Pilot Chart of the N. Atlantic Ocean. Supplement to the Chart for August, 1888. *Tract. folio. vol. 43. Washington [1888.] folio.*
- (Published by the U.S.A. Hydrographic Department.)
- Vierteljahrs-Wetter-Rundschau an der Hand der täglichen synoptischen Wetterkarten für den nordatlantischen Ocean des Dänischen Meteorologischen Instituts und der Deutschen Seewarte. Herbst, 1883, *etc.* *Berlin, 1888, etc. 4to.*
- ATLANTIC AND GREAT WESTERN RAILROAD. Proceedings of the meeting of Road Masters of the Atlantic and Great Western R.R. *Meadville, Pa. 1878-79. 8vo.*
- ATLANTIC AND GULF SHIP CANAL across the Peninsula of Florida. . . also the Great Tide Water Route, from the city of Fernandina through the peninsula to the city of Key West and Cuba. *Tract. 4to. vol. 83. Lond. [1877.] 4to.*
- ATLANTIC AND PACIFIC RAILWAY. Communications between the Atlantic and Pacific. Official Report to the American Congress. *Tract. 8vo. vol. 441. Lond. 1850. 8vo.*
- Meeting at the London Tavern and interviews with the Prime Minister and other members of the Government on the Atlantic and Pacific Railway (through Nicaragua). *Tract. 8vo. vols. 439 and 440. Lond. 1866. 8vo.*
- ATLANTIC AND PACIFIC SHIP CANAL. Interoceanic communication. Atlantic and Pacific ship canals and railroads. *Tract. 8vo. vol. 441. New York, 1867. 8vo.*
- Junction of the Atlantic and Pacific. *Tract. 8vo. vol. 441. Lond. 1850. 8vo.*
- The practicability and importance of a Ship-Canal to connect the Atlantic and Pacific Oceans, with a history of the enterprise, *etc.* *Tract. 8vo. vol. 112. New York, 1855. 8vo.*
- ATLANTIC AND PACIFIC SHIP-RAILWAY COMPANY. Statement, *etc.* *Tract. 8vo. vol. 463. New York, 1888. 8vo.*
- ATLANTIC AND PACIFIC STEAM NAVIGATION and Transit Company, Limited. Memorandum of association, *etc.* *Tract. 8vo. vol. 441. Lond. 1859. 8vo.*
- Memorial . . . to the President of the Republic of Nicaragua. *Tract. 8vo. vol. 441. Lond. 1859. 8vo.*

- ATLANTIC TELEGRAPH COMPANY.** *Atlantic Telegraph: a descriptive history.* *Lond.* 1857. 8vo.
- *Report and minutes of proceedings at the seventh ordinary annual meeting, and minutes of proceedings at the extraordinary general meeting.* *Tract.* 8vo. vol. 141. *Lond.* 1864. 8vo.
- *Report of the directors.* *Tract.* 8vo. vol. 141. *Lond.* [1858.] 8vo.
- *Report of the proceedings at an inauguration Banquet . . . in commemoration of the Renewal of the . . . Company.* *Tract.* 8vo. vol. 141. *Lond.* 1864. 8vo.
- ATLANTO-PACIFIC CANAL.** *The Atlanto-Pacific Canal for all nations. The Humboldt Line via the Atrato-Cupicá Valleys . . . Preliminary statement.* *Tract.* 8vo. vol. 112. *Lond.* [1853.] 8vo.
- ATRATO, S.S.** *Reports relative to the screw shaft of the S.S. Atrato.* *Lond.* 1873–74. folio.
- ATTFIELD, J.** *The origin, extension and prevention of Fires.* *Tract.* 8vo. vol. 288. *Lond.* 1872. 8vo.
- ATTHILL, W., Rev.** *Documents relating to the foundation and antiquities of the collegiate church of Middleham, etc.* *Lond.* 1847. 4to.
- ATTWOOD, G.** *Notes on some of the auriferous tracts of Mysore province, Southern India, etc.* *Tract.* 8vo. vol. 474. *Lond.* 1888. 8vo.
- (From the Quarterly Journal of the Geol. Soc.)
- *On the Geology of a part of Costa Rica. With an appendix by W. H. Hudleston.* *Tract* 8vo. vol. 474. *Lond.* 1882. 8vo.
- (From the Quarterly Journal of the Geol. Soc.)
- ATWOOD, G.** *The Theory of Ship-building; in 3 books, with an index.* MS. 1700. folio.
- ATWOOD, GEORGE.** *A dissertation on the construction and properties of Arches, etc.* 2 pt. *Lond.* 1801–1804. 4to.
- *An analysis of a course of lectures on the principles of Natural Philosophy, read in the University of Cambridge.* *Tract.* 8vo. vol. 27. *Lond.* 1784. 8vo.
- *Investigations, founded on the theory of motion, for determining the times of vibration of Watch Balances.* *Tract.* 4to. vol. 21. *Lond.* 1794. 4to.
- (From Phil. Trans.)
- AUBUISSON DE VOISINS, J. F.** *Appareils à vapeur. Formules à l'usage des ingénieurs chargés de l'épreuve et de la réception de ces appareils.* *Tract.* 8vo. vol. 129. *Paris,* 1839. 8vo.
- *Histoire de l'établissement des fontaines à Toulouse, et considérations sur quelques objets d'hydraulique et de dynamique relatifs à cet établissement.* *Toulouse,* 1830. 8vo.
- *Traité d'hydraulique, à l'usage des ingénieurs.* 2^{me} édition. *Strasbourg,* 1840. 8vo.
- *A Treatise on Hydraulics for the use of engineers. Translated from the French, etc.* *Boston,* 1852. 8vo.

- AUCHINCLOSS, W. S. The practical application of the slide valve and link motion to stationary, portable, locomotive and marine engines, with new and simple methods for proportioning the parts. 4th edition. *New York*, 1872. 8vo.
- Die practische Anwendung der Schieber- und Couliissensteuerungen. Autorisirte deutsche Uebersetzung und Bearbeitung von A. Müller. *Berlin*, 1886. 8vo.
- AUCHMONTAIN, *Ship*. Report . . . on the . . . Explosion of Gunpowder . . . on board the sailing barque "Auchmontain," on the 3rd September, 1892. *Lond.* 1893. folio.
- AUCKLAND, *N.Z.* Province of Auckland government loan, £500,000. Sketch of the present position of the Province of Auckland statistically and financially. *Tract.* 8vo. vol. 140. *Lond.* 1863. 8vo.
- Report of the Commission on the Railways of Auckland. *Wellington*, 1877. folio.
- Reports of Colonel T. R. Mould and J. Stewart on the Water Supply of Auckland. *Tract.* 8vo. vol. 149. *Auckland*, 1860. 8vo.
- AUCOC, L. Conférences sur l'administration et le droit administratif faites à l'École des Ponts et Chaussées. 3 vols. *Paris*, 1879–1885. 8vo.
(Vol. I. is of the 3rd edition, and Vols. II. and III. of the 2nd.)
- Les tarifs des chemins de fer et l'autorité de l'État. *Tract.* 8vo. vol. 319. *Paris*, 1880. 8vo.
- L'Institut de France. Lois, statuts et règlements concernant les anciennes Académies et l'Institut de 1635 à 1889. *Paris*, 1889. 8vo.
- Ueber die zur Entwicklung des französischen Eisenbahn-Netzes-angewendeten Mittel. . . Deutsch herausgegeben von W. von Nördling. *Tract.* 8vo. vol. 257. *Wien*, 1875. 8vo.
- AUCTIONEERS' INSTITUTE OF THE UNITED KINGDOM. Year Book and Diary for . . . 1893, (1894, etc.). *Lond.* 1893, etc. 8vo.
- AUDSLEY, W. and E. Cottage, lodge, and villa Architecture. *Lond.* [1869?] 4to.
- AUKLAND, T. F. Marine Insurance, Lloyd's and Lloyd's Agents. [Papers of the Shipmasters' Society, No. 27.] *Lond.* 1893. 8vo.
- AULDJO, J. Sketches of Vesuvius, with short accounts of its principal eruptions, etc. *Naples*, 1832. 8vo.
- AULT, E. A paper on the Shone Hydro-pneumatic Sewerage system, etc. *Tract.* 8vo. vol. 447. *Lond.* 1887. 8vo.
- Rangoon Sewerage and Water-supply Works, etc. 1892. 8vo. See SHONE, J., and AULT, E.
- AUSTEN, W. C. ROBERTS. See ROBERTS-AUSTEN.

- AUSTIN, A. Letter on the outfall of the Main Drainage, and intercepting sewers; accompanied by a report from Capt. Burstal, R.N., on the flow of the tide in the river Thames above and below Plumstead; together with a report by J. W. Bazalgette, recommending an extension of the outfall beyond the metropolitan area on the south side of the Thames. *Tract. 8vo. vol. 108.*
Lond. 1856. 8vo.
- AUSTIN, C. E. On the Cleansing of Rivers. *Tract. 8vo. vol. 223.*
Lond. 1872. 8vo.
- On the Utilisation of Sewage by filtration and irrigation. *Tract. 8vo. vol. 161.* [1867.] *8vo.*
- Undeveloped resources of Turkey in Asia, with notes on the Railway to India. *Tract. 8vo. vol. 294.* *Lond. 1878. 8vo.*
- AUSTIN, H. Thoughts on the abuses of the present system of competition in Architecture, etc. *Tract. 8vo. vol. 59.*
Lond. 1841. 8vo.
- AUSTIN, H., and LOVICK, T. Metropolitan Commission of Sewers. Report on the drainage of the Westminster Abbey precincts. *Tract. 4to. vol. 41.* 1849. *4to.*
- AUSTIN, J. B. The mines of South Australia, together with a brief description of the country. *Tract. 8vo. vol. 384.*
Adelaide, 1863. 8vo.
- AUSTIN, J. G. A practical treatise on . . . calcareous and hydraulic Limes and Cements, etc. *Lond. 1862. 12mo.*
- AUSTRALIA. Australasian Statistics, 1888-9.
Sydney, 1889. folio.
- The Australian and county directory for 1876-77. 2 vols.
Sydney, 1876-77. 8vo.
- The Australian Handbook—incorporating New Zealand, Fiji, and New Guinea—Shippers' and Importers' Directory and Business Guide, for 1879, (1892, etc.). *Lond. 1879, 1892, etc. 8vo.*
- How to settle and how to succeed in Australia, etc. By a Bushman. *Tract. 8vo. vol. 85.* *Lond. 1848. 8vo.*
- Mining Machinery and Treatment of Ores in Australian Colonies. [A New Zealand Parl. Paper.] *Wellington, 1889. folio.*
- Twenty years' experience in Australia. *Tract. 8vo. vol. 254.*
Lond. 1839. 8vo.
- Universal Suffrage and Vote by Ballot in Australia. How far is the present distressed condition of the Australian Colonies to be attributed to the adoption of universal suffrage and vote by ballot, etc. By an Old Colonist. *Tract. 8vo. vol. 155.*
Lond. 1867. 8vo.
- The Year-Book of Australia for 1886, (1890). 2 vols.
Sydney, 1886-90. 8vo.
- See also NEW SOUTH WALES, QUEENSLAND, SOUTH AUSTRALIA, VICTORIA, WESTERN AUSTRALIA.

- AUSTRALIAN DIRECT STEAM NAVIGATION COMPANY, via
Panama. Prospectus. *Tract.* 8vo. vol. 112. Lond. 1853. 8vo.
- AUSTRALIAN MUSEUM, Sydney. Report of Trustees for 1889.
Sydney, 1890. folio.
- AUSTRIA. [*Mines.*] Notice sur les principales mines de l'État
Autrichien. *Tract.* 8vo. vol. 298. Vienna, 1878. 8vo.
- Oesterreichisches Montan-Handbuch für das Jahr 1875.
Wien, 1875. 8vo.
- [*Monuments.*] Mittheilungen der K.K. Central Commission zur
Erforschung und Erhaltung der Kunst- und historischen Denkmale.
Wien, 1875, etc. 4to.
- [*Railways.*] Beiträge zur Beleuchtung der allgemeinen Verhält-
nisse der österreichischen Eisenbahnen. Abtheilung I. *Tract.*
Folio. vol. 28. Wien, 1879. folio.
- Besondere Vorschriften für den Baudienst der Eisenbahn von
Innsbruck nach Bozen. *Tract.* 8vo. vol. 257.
Wien, 1872. 8vo.
- Correspondence respecting Zone Tariff Rates for Goods and
Passenger Traffic on Railways in Austria and Hungary.
Lond. 1891. folio.
- Linie Innsbruck-Botzen, Uebergang über den Brenner. Situa-
tion [und] Längenprofil. Wien, [1868?] 4to.
- Statistische Nachrichten von den österreichisch-ungarischen
Eisenbahnen. Bearbeitet vom Statistischen Department im K.K.
Handels-Ministerium—1877, etc. Wien, 1880, etc. 4to.
- Oesterreichische Eisenbahnen, entworfen und ausgeführt in
den Jahren 1857 bis 1867, unter der Leitung von Carl von
Etzel. 6 vols. in 2. Wien, [1868?] 4to.
- AUTOMATIC COAL-GAS RETORT COMPANY. The Inclined
Retort System. *Tract.* 8vo. vol. 533. Lond. [1894.] 8vo.
- AUTOMATIC GAS MACHINE COMPANY. [Prospectus.] *Tract.*
8vo. vol. 479. Lond. [1887.] 8vo.
- A VELING, E. Mechanics and Experimental Science as required for
the Matriculation Examination of the University of London.
Lond. 1888. 8vo.
- A VELING, T. Agricultural Locomotives. *Tract.* 8vo. vol. 288.
Lond. 1878. 8vo.
- The Land Question. *Tract.* 8vo. vol. 333.
Rochester [1880.] 8vo.
- Road Locomotives: an epitome of the Road Locomotive Acts,
1861, 1865 and 1878. Lond. 1878. 8vo.
- — Edition for Scotland. Lond. 1878. 8vo.
- A VELING, T., and PORTER. Steam Road-rolling.
Rochester, 1878. 8vo.
- — [Another edition.] Lond. 1887. 8vo.

- AVIGDOR, E. H. D'. Das Wohlsein der Menschen in Grossstädten.
Mit besonderer Rücksicht auf Wien. *Wien*, 1874. 8vo.
- Waterworks, ancient and modern. *Tract.* 8vo. vol. 262.
(Reprinted from *Engineering*.) *Lond.* 1876. 8vo.
- AVILER, A. C. D'. Dictionnaire d'architecture civile et hydraulique,
et des arts qui en dépendent. [New edition.] *Paris*, 1755. 4to.
- AVONMOUTH.—*Bristol Docks*. Contract for a two-floor shed,
July, 1886. *Tract. folio.* vol. 38. 1886. folio.
- AYCKBOURN, F. Improved Cordage. *Tract.* 8vo. vol. 493.
Lond. [1890.] 8vo.
- AYLESBURY AND BUCKINGHAM RAILWAY. Report by
the Board of Trade on the Classification of merchandise traffic
and schedule of maximum rates, etc. *Lond.* 1891. folio.
- AYMARD, M. Irrigations du midi de l'Espagne : études sur les
grands travaux hydrauliques et le régime administratif des
arrosages de cette contrée. Précédé d'un rapport de M. Lebasteur.
(Atlas of plates.) *Paris*, 1864. 8vo. and 4to.
- AYRTON, W. E. Practical Electricity : a laboratory and lecture
course for first-year students of electrical engineering, etc.
Lond. 1887. 8vo.
- AYRTON, W. E., and PERRY, J. The Gas-engine Indicator-diagram.
Tract. 8vo. vol. 413. *Lond.* [1884.] 8vo.
(From the *Philosophical Magazine*.)
- See also PERRY, J., and AYRTON, W. E.
- AYRSHIRE AND WIGTOWNSHIRE RAILWAY. Report by
the Board of Trade . . . on the Classification of merchandise
traffic and schedule of maximum rates, etc. *Lond.* 1891. folio.
- AYROUARD, J. [A collection of Maps of the Ports of France.]
[1736.] 4to.
- AYSGARTH FORCE. The Railway Vandal at Aysgarth Force :
the Skipton and North Eastern Junction Railway Bill. *Tract.* 4to.
vol. 93. *Darlington*, [1884.] 4to.

B.

BABBAGE, C. A comparative view of the various institutions for the Assurance of Lives. *Lond.* 1826. 8vo.

(With corrections by Mr. Babbage in MS.)

— An analysis of the statistics of the Clearing House during the year 1839 ; with an appendix on the London and New York clearing houses, *etc.* *Tract.* 8vo. *vol.* 103. *Lond.* 1856. 8vo.

— Observations addressed, at the last anniversary, to the president and fellows of the Royal Society, after the delivery of the medals. *Tract.* 8vo. *vol.* 103. *Lond.* 1856. 8vo.

— Observations on the temple of Serapis at Pozzuoli, near Naples, with a supplement. Conjectures on the physical condition of the surface of the moon. *Lond.* 1847. 8vo.

— Of the Constants of Nature. Class Mammalia. *Tract.* 4to. *vol.* 42. 1853. 4to.

(From the *Compte rendu des travaux du Congrès général de Statistique.*)

— On the action of Ocean-currents in the formation of the strata of the earth. *Tract.* 8vo. *vol.* 103. [1856.] 8vo.

(From the *Quarterly Journal of the Geol. Soc.*)

— On the advantage of a collection of numbers, to be entitled "the Constants of Nature and Art." *Tract.* 8vo. *vol.* 192.

(From the "*Edinburgh Journal of Science.*") *Edin.* 1832. 8vo.

— On the Economy of Machinery and Manufactures. 3rd edition. *Lond.* 1832. 8vo.

— On the influence of Signs in Mathematical Reasoning. *Tract.* 4to. *vol.* 32. (From the *Trans. Cam. Phil. Soc.*) *Cambridge*, 1826. 4to.

— On the statistics of Light-houses. *Tract.* 4to. *vol.* 41. [1853.] 4to.

(From the *Compte rendu des travaux du Congrès général de Statistique.*)

— Passages from the Life of a Philosopher. *Lond.* 1864. 8vo.

— Reflections on the Decline of Science in England, *etc.* *Lond.* 1830. 8vo.

— Table of Logarithms of the natural numbers, from 1 to 108,000. Stereotyped edition. *Lond.* 1872. 8vo.

— The Exposition of 1851 ; or, views of the industry, the science, and the government of England. [2nd edition with additions.] *Lond.* 1851. 8vo.

— Thoughts on the Principles of Taxation with reference to a property tax, and its exceptions. *Tract.* 8vo. *vol.* 116. *Lond.* 1853. 8vo.

— History of Mr. Babbage's calculating engines. *Lond.* 1843. 4to. (From the *Philosophical Magazine.*)

BABBAGE, C., and HERSCHEL, Sir J. F. W. Account of the repetition of M. Arago's experiments on the magnetism manifested by various substances during the act of rotation. *Tract. 4to. vol. 43.*
(From Phil. Trans.) *Lond. 1825. 4to.*

BABBAGE, H. P. Babbage's calculating engines. Being a collection of papers relating to them, their history and construction.
Lond. 1889. 4to.

— Babbage's Occulting Telegraph. *Tract. 8vo. vol. 493.*
Cheltenham, 1889. 8vo.

— The Occulting Telegraph and its inventor. *Tract. 8vo. vol. 493.*
1890. 8vo.

— On the mechanical arrangements of the Analytical Engine of the late Charles Babbage, F.R.S. *Tract. 8vo. vol. 465.*
Lond. 1888. 8vo.

— Railway Communication between India and Upper Burma.
Tract. 8vo. vol. 491. Cheltenham, 1890. 8vo.

BABBITT, —. Reports on Babbitt's patent lined Bearings of Machinery. *Tract. 8vo. vol. 97.* [1847.] *8vo.*

BABINET, J., and HOUSEL, C. Calculs pratiques appliqués aux sciences d'observation.
Paris, 1857. 8vo.

BACCARINI, A. Sul compimento delle opere di bonificazioni e sulla definitiva regolazione delle acque nelle marenne Toscane.
Roma, 1873. 4to.

BACH, C. Die Construction der Feuerspritzen. Mit einem Anhang: die allgemeinen Grundlagen für die Construction der Kolbenpumpen.
Stuttgart, 1883. 8vo.

— Die Maschinenelemente. (Atlas of plates.)
Stuttgart, 1881. 8vo. and folio.

— Die Wasserräder. (Atlas of plates.) *Stuttgart, 1886. 8vo.*

— Versuche zur Klarstellung der Bewegung selbstthätiger Pumpen-ventile. *Tract. 4to. vol. 106.* *Stuttgart, 1887. 4to.*

BACHE, A. D. Report on the Coast Survey, etc. *Tract. 8vo. vol. 65.* *Washington, 1844. 8vo.*

— — [For 1849 and 1850.] *Tract. 8vo. vol. 114.*
Washington, 1849–50. 8vo.

— Report to the Treasury Department on the progress of the work of constructing standards of weights and measures, and balances, in the year 1844, etc. *Tract. 8vo. vol. 80.*
Washington, 1845. 8vo.

BACHHOFFNER, G. H. A popular treatise on Voltaic Electricity and Electro-Magnetism, etc. *Tract. 8vo. vol. 493.*
Lond. 1838. 8vo.

BACK, Capt. G. Report on Holyhead and Port Dynllaen Harbours. 1844. See HOLYHEAD HARBOUR.

BACLÉ, L. Manuel du mécanicien conducteur de locomotives. 1881.
See RICHARD, G., and BACLÉ, L.

- BACLÉ, L.—*continued*. Progrès récents de la métallurgie dans la préparation des produits militaires. *Tract.* 8vo. vol. 495. Paris, 1889. 8vo.
- Les voies ferrées. Paris, 1882. 8vo.
- BACON, G. W. New ordnance Atlas of the British Isles, with large scale plans of towns, etc. Lond. 1883. folio.
- Ordnance Atlas of London and suburbs, with supplementary maps. Lond. [1885.] 4to.
- BACON, Sir FRANCIS, *Baron Verulam*. Works . . . Edited by Dr. Birch. 5 vols. Lond. 1765. 4to.
- BADDELEY, F., *Major*. Pamphlet on the manufacture of Gunpowder, as carried on at the Government factory, Waltham Abbey. *Tract.* 8vo. vol. 120. Waltham Abbey, 1857. 8vo.
- BADDELEY, P. F. H. Whirlwinds and dust-storms of India, etc., with an addendum containing practical hints on sanitary measures required for the European soldier in India. (Atlas.) *Tract.* 8vo. vol. 368. Lond. 1860. 8vo. and folio.
- BADDESLEY COLLIERY. Two reports on the circumstances attending an accident on May 1st, 1882. Lond. 1884. folio.
- BADEN.—*Centralbureau für Meteorologie und Hydrographie*. Beiträge zur Hydrographie des Grossherzogthums Baden. Heft 1, (2, etc.). Karlsruhe, 1884, etc., 4to.
- — Jahres-Bericht, 1883, (1884, etc.). Karlsruhe, 1883, etc. 8vo.
- — Wasserstandsbeobachtungen an den wichtigeren Pegeln des Rheins . . . im Grossherzogthum Baden. [Karlsruhe,] 1880, etc. folio.
- *Grossherzogliche Ingenieurschule*. See CARLSRUHE.
- *Grossherzogliche Oberdirection des Wasser- und Strassenbaues*. Die Correction des Rheins von Basel zur Grosshessischen Grenze. (Atlas of plates.) Karlsruhe, 1863. 4to.
- BADESLADE, T. A scheme for draining the Great Level of the Fens called Bedford Level, and for improving the navigation of Lyn-Regis. Lond. 1729. folio.
- The history of the ancient and present state of the Navigation of the Port of King's Lyn, and of Cambridge, and the rest of the trading towns in those parts; and of the navigable rivers that have their course through the great Level of the fens, called Bedford Level. Also the history of draining of that level, in the province of Marchland. With the method proposed for draining the said fens and amending the harbour of Lyn: by Col. J. Armstrong. Lond. 1766. folio.
- BADGER, G. P. A visit to the Isthmus of Suez Canal Works. *Tract.* 8vo. vol. 442. Lond. 1862. 8vo.
- BADOIS, E. Étude sur les moyens mécaniques à employer aux travaux du canal de Suez dans la traversée des lacs Menzaleh et Ballah, et description de l'excavateur ou drague à pivot pour terrassements à sec, construite par MM. Frey Fils et A. Sayn. [Suez Canal Tracts. Vol. 2.] Paris, 1865. 8vo.

- BADOUREAU, A.** *Les sciences expérimentales en 1889.*
Paris, 1889. 8vo.
- BAEDEKER, K.** *Guide Books.*
- *Belgium and Holland. Leipsic, 1881. 8vo.*
 - *Egypt, Lower. Leipsic, 1878. 8vo.*
 - *Germany, Northern. Leipsic, 1881. 8vo.*
 - — *Southern, and Austria. Leipsic, 1880. 8vo.*
 - *Italy, Central. Leipsic, 1881. 8vo.*
 - — *Northern. Leipsic, 1879. 8vo.*
 - — *Southern. Leipsic, 1880. 8vo.*
 - *London. Leipsic, 1881. 8vo.*
 - *Norway and Sweden. Leipsic, 1879. 8vo.*
 - *Paris. Leipsic, 1881. 8vo.*
 - *The Rhine. Leipsic, 1880. 8vo.*
 - *Switzerland. Leipsic, 1881. 8vo.*
- BAGGALLAY, H. C.** *Access to Liverpool, with suggested improvements. Tract. 8vo. vol. 357. Lond. 1884. 8vo.*
- BAGOT, A. C.** *Accidents in Mines, their causes and prevention. Lond. 1878. 8vo.*
- *Life brigades for Mining Districts. Tract. 8vo. vol. 346. Lond. 1883. 8vo.*
 - *On the construction and comparative merits of the Safety Lamps generally in use. Tract. 8vo. vol. 324. Lond. [1879.] 8vo.*
 (From Proc. Inst. Mech. Eng., London.)
 - *The principles and practice of Colliery Ventilation. Birmingham, 1879. 8vo.*
 - — *2nd edition, enlarged. Lond. 1882. 8vo.*
 - *The principles of Civil Engineering as applied to Agriculture and Estate Management. Lond. 1885. 8vo.*
- BAGOT, C. H.** *The national importance of Emigration considered, etc. Tract. 8vo. vol. 140. Lond. 1863. 8vo.*
- BAGSHAW, F. T.** *The manufacture of Ice by the "Beth process." Tract. 8vo. vol. 425. [1886.] 8vo.*
- BAHIA AND SAN FRANCISCO RAILWAY.** *Half yearly report of the directors. Lond. 1891. folio.*
- BAIE VERTE CANAL.** *Report of the chief engineer of public works on the construction of a canal between the Gulf of St. Lawrence and the Bay of Fundy. Ottawa, 1874. 8vo.*
- *Report on the Baie Verte Canal, etc. Ottawa, 1873. 8vo.*
- BAILBY, E.** *Application de la perspective linéaire à la décoration architecturale des plafonds. Paris. 1876. 4to.*
- BAILEY, A. M.** *The Advancement of Arts, manufactures, and commerce; or, descriptions of the useful machines and models contained in the repository of the Society of Arts, etc. Lond. 1776. folio.*

- BAILEY, JAMES. Remarks on the frequent renewal of the Steam-boilers of our Iron-clad Fleet, and a means of obviating the same. *Tract. folio. vol. 19.* *St. Albans, 1874. folio.*
- BAILEY, JOHN. An essay on the construction of the Plough, deduced from mathematical principles and experiments. *Tract. 8vo. vol. 288.* *Newcastle, 1795. 8vo.*
- BAILEY, J. C. Nipissing and James' Bay Railway : a description of the country traversed by this railway, and of Hudson's Bay and Strait. *Tract. 8vo. vol. 356.* *Toronto, 1884. 8vo.*
- BAILEY, S. O. Plan of Bradford. *Bradford, 1880. 8vo.*
- BAILEY, W. H. Chat Moss, and a new chapter in the history of the Manchester and Liverpool Railway. . . Also a short account of the Manchester Grammar School. *Tract. 8vo. vol. 487.* *Manchester, 1889. 8vo.*
- On the use of Steam for Canal-boat propulsion. Inaugural address, etc. *Tract. 8vo. vol. 487.* *Manchester, 1886. 8vo.*
- Outside the Class-room : thoughts for young engineers. *Manchester, 1891. 8vo.*
- Steam-boiler Legislation. Address, etc. *Tract. 8vo. vol. 457.* *Manchester, 1887. 8vo.*
- The first Iron Boat, and its inventor, John Wilkinson, the father of the iron trade. *Manchester, 1886. 8vo.*
- BAILEY, —, and GREIG, —. Abstract of report on the application of Sewage Water to the gardens and grounds in Fulham fields. *Tract. 8vo. vol. 149.* [] *8vo.*
- BAILEY-DENTON, E. F. See DENTON, E. F. B.
- BAILEY-DENTON, J. See DENTON, J. B.
- BAILLAIRGÉ, C. P. F. Appréciations du tableau stéréométrique Baillaigé. *Tract. 8vo. vol. 464.* *Québec, 1875. 8vo.*
- Géométrie, toisé et le tableau stéréométrique. *Tract. 8vo. vol. 464.* *Québec, 1873. 8vo.*
- Geometry, Mensuration and the stereometrical tableau. Lecture, etc. *Tract. 8vo. vol. 464.* *Quebec, 1873. 8vo.*
- Key to stereometrical tableau. *Quebec, 1876. 8vo.*
- The Municipal Situation [of Quebec]. *Tract. 8vo. vol. 464.* *Quebec, 1878. 8vo.*
- Nouveau traité de géométrie et de trigonométrie. *Québec, 1866. 8vo.*
- Papers read before the Royal Society of Canada, 1882 and 1883. *Tract. 8vo. vol. 395.* *Quebec, 1884. 8vo.*
- A practical solution of the great social and humanitarian problem : Escape from Buildings in case of Fire. *Tract. folio. vol. 41.* *Quebec, 1887. folio.*
- Report of the city engineer, Quebec, (C. B.) on the proposed Dry Dock in the mouth of the River St. Charles. *Tract. 8vo. vol. 483.* *Quebec, 1876. 8vo.*

BAILLAIRGÉ, C. P. F.—*continued*. Report on the amelioration of the Quebec Aqueduct: resolution of the City Council of the 10th June, 1881. *Tract*. 8vo. vol. 462. Québec, 1881. 8vo.

— The Stereometicon. *Tract*. 8vo. vol. 464. Montreal, 1880. 8vo.

— Toisé des surfaces. Clef du nouveau système de toiser. *Tract*. 8vo. vol. 464. Québec, 1875. 8vo.

— Biographie. *Tract*. 4to. vol. 93. Chicago, 1881. 4to.
(From the "Dictionnaire Biographique," Chicago, 1881, with English translation.)

BAILLIE, A. F. Kurrachee (Karachi): past, present, and future. Calcutta, 1890. 8vo.

BAILLIERE'S New South Wales Gazetteer. See WHITWORTH, R. P.

BAILLY, J. S. Histoire de l'astronomie ancienne et moderne. 2 vols. Paris, 1805. 8vo.

BAILY, F. Memoir relative to the annular Eclipse of the Sun, which will happen on September 7, 1820. *Tract*. 8vo. vol. 26. Lond. 1818. 8vo.

— New tables for facilitating the computation of precession, aberration, and nutation of 2881 principal fixed stars; together with a catalogue of the same reduced to January 1st, 1830, etc. *Tract*. 4to. vol. 15. Lond. 1827. 4to.
(From the Memoirs of the Royal Astronomical Society.)

— Report on the new Standard Scale of the Royal Astronomical Society. *Tract*. 4to. vol. 9. Lond. 1836. 4to.
(From the Memoirs of the Royal Astronomical Society.)

— Tables for the purchasing and renewing of Leases, etc. Lond. 1802. 8vo.

— The doctrine of Life-annuities and Assurances, analytically investigated and practically explained, etc. 2 vols. Lond. 1813. 8vo.

BAIN, A. A short history of the Electric Clocks, etc. *Tract*. 8vo. vol. 100. Lond. 1852. 8vo.

— Petition against, and evidence before the Committee on the Electric Telegraph Company Bill. *Tract*. 8vo. vol. 67. Lond. 1846. 8vo.

BAIN, D. Bays of Refuge for vessels in Storms, etc. *Tract*. 8vo. vol. 524. Lond. 1857. 8vo.

BAIN, T. Report on the recent Gold discoveries in the division of Knysna, etc. *Tract*. folio. vol. 38. Cape Town, 1886. folio.

BAINBRIDGE, E. On the Haulage of Coal; being the report of the committee appointed by the North of England Institute of Mining Engineers, etc. Newcastle-upon-Tyne, 1869. 8vo.

BAINBRIDGE, W. A treatise on the Law of Mines and Minerals. 4th edition. Lond. 1878. 8vo.



- BAINES, E. History of the Cotton Manufacture in Great Britain : with a notice of its early history in the East, *etc.*
 Lond. 1835. 8vo.
- History of the County Palatine and Duchy of Lancaster. . . New . . . edition, edited by John Harland : continued and completed by B. Herford. 2 vols. *Lond. 1870. 4to.*
- BAINES, T. Yorkshire, past and present : a history and a description. . . Including an account of the Woollen Trade of Yorkshire by E. Baines. 2 vols. in 4 pt. *Lond. [1871-77.] 4to.*
- BAINES, T., and FAIRBAIRN, W. Lancashire and Cheshire, past and present. 2 vols. in 4 pt. *Lond. [1868-69.] 4to.*
- BAIRD, A. W., *Major*. Description of the Gulf of Cutch, and of the lesser Ran of Cutch : with appendix, giving an account of the tidal observations in the Gulf of Cutch. *Tract. 8vo. vol. 322. Bombay, 1880. 8vo.*
- A Manual for Tidal Observations. *Lond. 1886. 8vo.*
- BAIRD, A. W., *Major*, and ROBERTS, C. Tide tables for the Indian ports, 1881 and 1882. *Lond. [1880?] 8vo.*
- BAIRD, H. Report on the proposed Edinburgh and Glasgow Union Canal. *Tract. 4to. vol. 7. Edinburgh, 1813, 14. 4to.*
- See also EDINBURGH AND GLASGOW UNION CANAL. Observations . . . With appendix, containing the Reports of Messrs. Telford and Baird, 1817.
- BAIRD, R. H. The American Cotton Spinner, and managers' and carders' guide : a practical treatise on cotton spinning.
 Philadelphia, 1866. 12mo.
- BAKER, —. Patent anti-incrustator apparatus for removing Scale from Steam-boilers. *Tract. 8vo. vol. 153. Lond. [1866.] 8vo.*
- BAKER and SON. Fielder's patent for improvements in the construction of iron beams or girders. *Tract. folio. vol. 11. Lond. [] folio.*
- BAKER, Sir B. The actual Lateral Pressure of Earthwork.
 New York, 1882. 8vo.
 (From Min. Proc. Inst. C.E.)
- Address as President of the Mechanical Science Section of the British Association. *Tract. 8vo. vol. 414. Lond. 1885. 8vo.*
- Bridging the Firth of Forth. *Lecture, etc. Tract. 4to. vol. 107. Lond. 1887. 4to.*
- Diagrams giving Weights of Iron Girders up to 200 feet span.
 Lond. [1875?] 4to.
- The Forth Bridge. Read at the British Association, *etc.* *Tract. 8vo. vol. 359. Lond. 1882. 8vo.*
- The Forth Bridge. *Tract. 4to. vol. 93. Lond. 1884. 4to.*
- Long-span Railway Bridges, *etc.* Revised edition.
 Lond. 1873. 8vo.

- BAKER, Sir B.—*continued*. On the Strengths of Beams, Columns and Arches. *Lond.* 1870. 8vo.
- Sweet-Water Canal through Egypt. 1884. *See* FOWLER, Sir J., and BAKER, Sir B.
- BAKER, Sir B., and BINNIE, A. R. Main drainage of London. Joint report, February, 1891. *Tract.* 8vo. vol. 511. *Lond.* 1891. 8vo.
- BAKER, H. F. Improvement in Steam-boiler Furnaces. Patented 1847. *Tract.* 8vo. vol. 84. *Lond.* 1848. 8vo.
- BAKER, J. O. A treatise on Masonry Construction. 3rd and revised edition. *New York*, 1890. 8vo.
- BAKER, J. P. Gases and Mining. *Tract.* 8vo. vol. 298. 1870. 8vo.
- BAKER, M. N. The manual of American Waterworks. 1888–90. *New York*, 1889–90. 8vo.
- Sewage Disposal in the United States. 1894. *See* RAFTER, G. W., and BAKER, M. N.
- BAKER, Sir S. W. Eight years in Ceylon. New edition. *Lond.* 1874. 8vo.
- BAKER, T. Elementary treatise on Land and Engineering Surveying, *etc.* New edition. *Lond.* 1859. 8vo.
- Elements of Mechanism : elucidating the scientific principles of the practical construction of machines. *Lond.* 1852. 8vo.
- The Elements of Practical Mechanism and machine tools. With remarks on tools and machinery, by James Nasmyth. 3rd edition. *Lond.* 1867. 8vo.
- The Laws relating to Public Health, sanitary—medical—protective, *etc.* *Lond.* 1865. 8vo.
- The principles and practice of Statics and Dynamics, embracing a clear development of hydrostatics, hydrodynamics, and pneumatics, *etc.* *Lond.* 1851. 8vo.
- Railway Engineering ; or, field work preparatory to the construction of railways, *etc.* *Lond.* 1848. 8vo.
- Rudimentary treatise on Land and Engineering Surveying. New edition. *Lond.* 1873. 8vo.
- Treatise on the Mathematical Theory of the Steam-engine . . . 3rd edition. *Lond.* 1865. 12mo.
- BAKER, W. L. The Beam : or, technical elements of Girder Construction. *Lond.* 1892. 8vo.
- The great Bell of Westminster : a letter to E. B. Denison, Esq. *Tract.* 8vo. vol. 115. *Westminster*, 1857. 8vo.
- BAKEWELL, F. C. Considerations respecting the Figure of the Earth, in relation to the action of centrifugal force and to the attempts to determine the ellipticity of the globe by pendulum observations. *Tract.* 8vo. vol. 139. *Lond.* 1862. 8vo.
- Electrical science ; its history, phenomena, and applications. *Lond.* 1853. 8vo.

- BAKEWELL, F. C.—*continued*. Geology for schools and students, *etc.*
Lond. 1854. 8vo.
- Natural evidence of a Future Life, *etc.* *Lond.* 1835. 8vo.
- BAKEWELL, R. An introduction to Geology. . . 2nd edition.
Lond. 1815. 8vo.
- BALBRECK, —. Instruments de précision, *etc.* *Tract.* 4to. vol.
Paris, [.] 4to.
- BALCH, L. Prevention of Diphtheria. *Tract.* 8vo. vol. 484.
 [1889.] 8vo.
- BALD, R. Report of a Mineral Survey along the track of the proposed
 north or level line of canal betwixt Edinburgh and Glasgow, as
 projected by J. Rennie in 1798, *etc.* *Tract.* 4to. vol. 7.
Leith, 1814. 4to.
- Report regarding the Steam-boat proposed to be established at the
 Alloa ferry passage, in place of the present boats with oars.
Tract. 4to. vol. 38. [1822.] 4to.
- BALD, W. General report on a part of the River Clyde, between
 Jamaica-street bridge and the Glasgow waterworks. *Tract.* 8vo.
Glasgow, 1839. 8vo.
- Report on the Harbour of Drogheda. *Tract.* 8vo. vol. 75.
Drogheda, 1837. 8vo.
- BALDACCI, L. Quelques observations sur le tremblement de terre
 survenu à l'île d'Ischia, le 28 Juillet, 1883. *Tract.* 8vo. vol. 401.
Liège, 1883. 8vo.
- Tremblement de terre survenu à l'île d'Ischia, en juillet, 1883.
 Nouvelles observations. *Tract.* 8vo. vol. 390.
Liège, 1883. 8vo.
- BALDAMUS, E. Die Erscheinungen der deutschen Litteratur,
 1870–74, (1875–79), auf dem Gebiete der Bau-Maschinen- und
 Eisenbahnkunde und des Telegraphenwesens. Mit Anhang:
 Bergbau und Hüttenkunde, *etc.* 2 pt. *Tract.* 8vo. vols. 334, 371.
Leipzig, 1875. 8vo.
- BALDAQUE, A. A. Étude sur l'amélioration des ports établis sur
 les côtes basses et sablonneuses. *Lisbonne*, 1888. 8vo.
- BALDRAGGO, G. Cenni sulla costituzione metallifera della Sardegna.
Torino, 1854. 8vo.
- BALDREY, G. The Ship's Rudder-stem versus stern, and screw-pro-
 peller versus rudder. *Tract.* folio. vol. 28. *Madras*, 1879. folio.
 (Lithographed.)
- BALDUS, B. De verborum Vitruvianorum significatione: siue
 perpetuus in M. Vitruvium Pollionem commentarius. Auctore
 Bernardino Baldo . . . Accedit vita Vitruuij, eodem auctore.
Augustæ Vindellicorum, 1612. 4to.
- BALDWIN, J. S. A new system of Transportation. *Tract.* 8vo.
vol. 402. *Newark, N. J.* 1884. 8vo.
- Power without Fuel, *etc.* *Tract.* 8vo. vol. 175.
New York, 1869. 8vo.

BALDWIN, W. J. Steam Heating for buildings.

New York, 1882. 8vo.

BALE, M. P. A Handbook for Steam users, etc. *Lond.* 1887. 8vo.

— — — 3rd edition.

Lond. 1890. 8vo.

— How to manage a Steam-engine.

Lond. [1880.] 8vo.

— Modern Shafting and Gearing, and the economical Transmission of Power, etc.

Lond. [1894.] 8vo.

— Pumps and pumping ; a handbook for pump users, etc.

Lond. 1889. 8vo

— Saw-mills ; their arrangement and management, and the economical conversion of timber.

Lond. 1883. 8vo.

— Stone-working Machinery, and the rapid and economical conversion of stone.

Lond. 1884. 8vo.

— Steam and Machinery management.

Lond. 1884. 8vo.

— Wood-working Machinery, etc.

Lond. 1880. 8vo.

BALFOUR, D. Coken New Bridge over the Wear betwixt Durham and Sunderland. Proceedings at the opening ceremony . . . including a description of the bridge by the engineer, D. Balfour. *Tract.* 8vo. vol. 435.

Durham, 1886. 8vo.

— Penshaw New Bridge over the River Wear . . . Proceedings at the opening ceremony . . . including a view and description of the Bridge. Report of public meeting on 5th February, 1891, for the promotion of a Bridge over the River Wear at Hylton, near Sunderland, etc. *Tract.* 8vo. vol. 510.

Sunderland, 1891. 8vo.

— Report on a scheme of Sewage-Disposal for the Town of Alnwick. *Tract.* 8vo. vol. 511.

Alnwick, 1892. 8vo.

— Report on a scheme for the . . . Sewage-Disposal Works and Main Sewerage System of . . . Skegness, etc. *Tract.* 8vo. vol. 511.

Skegness, 1892. 8vo.

— Report on main Sewerage, and Sewage Disposal Works, proposed at the town of Chester-le-Street. *Tract.* 8vo. vol. 275.

Sunderland, 1877. 8vo.

— Report on proposed main Sewerage and Sewage Disposal Works for the Houghton-le-Spring Rural Sanitary Authority. *Tract.* 8vo. vol. 275.

Sunderland, 1876. 8vo.

— Report on Sewage Disposal. *Tract.* 8vo. vol. 247.

Sunderland, 1875. 8vo.

— Road Legislation and Surveying ; or, the government and the highway and turnpike acts for England. *Tract.* 8vo. vol. 270.

Sunderland, 1876. 8vo.

— Road Legislation : past, present and prospective. *Tract.* 8vo. vol. 270.

Sunderland, 1876. 8vo.

— The Water supply of Villages, and the practical operation of the Public Health Act (Water), 1878. *Tract.* 8vo. vol. .

Lond. 1883. 8vo.

- BALFOUR, E. *Cyclopædia of India, and of Eastern and Southern Asia.* 5 vols. *Madras*, 1871. 8vo.
- BALFOUR, G., *Major-General.* On the Budgets and Accounts of England and France. *Tract.* 8vo. vol. 156. *Lond.* 1866. 8vo.
(From Journal of the Statistical Society of London.)
- BALFOUR, J. M. New Zealand Exhibition, 1865. Results of a series of experiments on the strength of colonial Woods; being Appendix C of the jurors' reports. *Tract.* 8vo. vol. 155. [1865.] 8vo.
- BALL, J. Report to the Corporation of Bristol on the proposed schemes for the construction of docks at Avonmouth, *etc.* 1872. See STEVENSON, D., and BALL, J.
- BALL, Sir R. S. *Experimental Mechanics: a course of lectures, etc.* *Lond.* 1871. 8vo.
- 2nd edition. *Lond.* 1888. 8vo.
- The Theory of Screws: a study in the dynamics of a rigid body. *Dublin*, 1876. 8vo.
- Time and Tide: a romance of the moon, *etc.* *Lond.* 1889. 8vo.
- BALL, V. The Diamonds, Coal and Gold, of India: their mode of occurrence and distribution. *Lond.* 1881. 8vo.
- BALL, W. W. R. *Mathematical Recreations and Problems of past and present times.* 2nd edition. *Lond.* 1892. 8vo.
- BALLAARAT SCHOOL OF MINES. *Annual Report*, 1876. *Ballaarat*, 1877. 8vo.
- BALLANTINE, J. *Essay on Ornamental Art as applicable to trade and manufactures.* *Tract.* 4to. vol. 39. *Lond.* 1847. 4to.
- BALLANTINE, W. *Stone breaking by machinery, etc.* *Tract.* 8vo. vol. 475. *Falkirk*, 1886. 8vo.
- BALLANTYNE, J. *Refutation of the mis-statements and calumnies contained in Mr. Lockhart's life of Sir W. Scott, Bart., respecting the Messrs. Ballantyne.* *Tract.* 8vo. vol. 67. *Lond.* 1838. 8vo.
- BALLARD, E. D. *Report in respect of the inquiry as to Effluvia Nuisances arising in connection with various manufacturing and other branches of industry.* *Lond.* 1882. 8vo.
- *Report on alleged Nuisances from Noxious Trades carried on along the shores of the Thames.* *Tract.* 8vo. vol. 325. *Lond.* 1874. 8vo.
- BALLARD, M., v. TOMLINSON, W. J. *Judgments of Mr. Justice Pearson of Feb. 13th, 1884, and of the Master of the Rolls and Lords Justices Cotton and Lindley of Feb. 17th, 1885 (Underground water rights).* *Tract. folio.* vol. 37. *Lond.* 1885. folio.
- BALLARD, R. *The solution of the Pyramid Problem; or, pyramid discoveries, etc.* *New York*, 1882. 8vo.

- BALLHORN, F.** *Grammar of the German Language; a manual of reference to the alphabets of ancient and modern languages, based on the German compilation of F. Ballhorn.* *Lond.* 1861. 8vo.
- BALLINASCARTHY AND TIMOLEAGUE JUNCTION LIGHT RAILWAY.** Report by the Board of Trade . . . on the Classification of Merchandise Traffic and Schedule of Maximum Rates, *etc.* *Lond.* 1891. folio.
- BALLING, C. A. M.** *Die Metallhüttenkunde. Gewinnung der Metalle und Darstellung ihrer Verbindungen auf den Hüttenwerken.* *Berlin*, 1885. 8vo.
- *Grundriss der Elektrometallurgie.* *Stuttgart*, 1888. 8vo.
- BALLYCASTLE RAILWAY.** Report by the Board of Trade . . . on the Classification of Merchandise Traffic and Schedule of Maximum Rates, *etc.* *Lond.* 1891. folio.
- BALLYCOTTIN.** Copy of Report on the Pier at Ballycottin, county Cork, by Mr. J. W. Barry. *Lond.* 1889. folio.
- BALMOKAND, L.** Description of Jama Masjid, Delhi. *Delhi*, 1881. folio.
- BALRANALD.** Report on an Outbreak of Fever at Balranald caused by polluted water. By J. A. Thompson. *Sydney*, 1889. folio.
- BALTARD, V., and CALLET, F.** *Monographie des halles centrales de Paris.* *Paris*, 1872-73. folio.
- BALTIMORE.** Annual Report of the Health Department, 1883-86. 4 vols. *Baltimore*, 1884-87. 8vo.
- BALTIMORE AND OHIO RAILROAD.** Annual Report. *Tract.* 8vo. vol. 531. *Baltimore*, 1882. 8vo.
- A history and description of the Baltimore and Ohio Railroad. By a Citizen of Baltimore. *Tract.* 8vo. vol. 393. *Baltimore*, 1853. 8vo.
- Lectures delivered to the employés. *Baltimore*, 1882. 8vo.
- BALY, P. P.** Report on Baths and Washhouses for the working-classes. *Tract.* 4to. vol. 41. *Lond.* 1852. 4to.
- BANCROFT, R. M. and F. J.** Chimney construction. Read before the Society of Civil and Mechanical Engineers. *Tract.* 8vo. vol. 361. *Lond.* 1883. 8vo.
- Tall Chimney construction. *Manchester*, 1885. 8vo.
- BANDERALI, D.** Les chemins de fer métropolitains à New York et dans les grandes cités américaines. *Tract.* 8vo. vol. *Paris*, 1886. 8vo.
- BANISTER, F. D.** The modern history of Newhaven Harbour, with proposals for its improvement. *Lond.* 1879. 8vo.
- BANISTER, H.** Gas manipulation; with a description of the various instruments and apparatus employed in the analysis of coal and coal-gas. Enlarged by W. T. Sugg. *Lond.* 1867. 8vo.

- BANKS, E. Report on the practicability and expense of a navigable Canal proposed to be made between the Grand Southern Canal, near Cophthorne Common and Merstham, to communicate with the river Thames at Wandsworth, by means of the Surry iron railways. *Tract. 4to. vol. 7. Lond. 1810. 4to.*
- BANKS, J. A Treatise on Mills, in four parts. *Lond. 1795. 8vo.*
- On the Power of Machines . . . With the method of computing their force, *etc. Kendal, 1803. 8vo.*
- BANN, *River*. An Act, (and amended Act) for the Improvement of the Navigation of the River Bann. *Lond. 1817–36. folio.*
- Report from the Select Committee on the Bann Drainage Bill. *Lond. 1889. folio.*
- BANNISTER, L. Something about Natural Gas, *etc. Tract. 8vo. vol. 479. New York, 1886. 8vo.*
- BANNISTER, S. Pictorial Maps for the illustration of the land, the sea, and the heavens . . . Being a letter to C. L. Eastlake, Esq., R.A. New edition. *Tract. 8vo. vol. 85. Lond. 1849. 8vo.*
- Records of British Enterprise beyond sea, from the earliest original sources to the present times. Vol. 1. Part. 1. *Lond. 1849. 8vo.*
- BANTI, A. Il trasporto di energia elettrica da Tivoli a Roma. *Tract. folio. vol. 48. Roma, 1893. folio.*
- BAPST, G. Études sur l'étain dans l'antiquité et au moyen âge. *Paris, 1884. 8vo.*
- BAPTISTA, J. N. These de concurso para a cadeira de physica experimental da Escola de Marinha. Pontos: Estudo dos phenomenos physicos devidos á acção das forcas moleculares. *Tract. 8vo. vol. 349. Rio de Janeiro, 1882. 8vo.*
- BÄR, F. J. Die Wasser- und Strassenbau-Verwaltung in dem Grossherzogthum Baden. *Karlsruhe, 1870. 4to.*
- BARABANT, —. Note sur les questions de viabilité, nettoyage, empierrément, pavage en pierre et en bois, asphalte et tramways. *Tract. 4to. vol. 93. Paris, 1884. 4to.*
- BARANOWSKI, J. J. Automatic Railway Signals invented by J. J. Baranowski. *Tract. 4to. vol. 106. Lond. 1887. 4to.*
- Biography of J. J. Baranowski, and observation upon his work to be shortly published under the title of "Anglo-Polish Lexicon." *Tract. 8vo. vol. 445. Paris, 1881. 8vo.*
- Inventions mécaniques et travaux littéraires de J. J. Baranowski. *Tract. 4to. vol. 106. Paris, 1886. 4to.*
- Matériel des chemins de fer. Nouveaux systèmes des signaux-disques sans contre-poids, et des lanternes sans poulies ni chaînes. *Tract. 4to. vol. 46. Turin, 1864. 4to.*

- BARANOWSKI, J. J.—*continued*. Patent automaton Distant Signal, etc. *Tract. 4to. vol. 42.* *Lond.* 1859. 4to.
- Patent automaton Railway Signals, etc. *Tract. 4to. vol. 42.* *Lond.* 1858. 4to.
- Spécifications des signaux-disques sans contre-poids (ordinaires et automatiques), lanternes sans poulies ni chaînes, et appareils de manœuvre laissant toujours le fil de fer en dilatation libre. *Tract. 4to. vol. 45.* *Turin,* 1864. 4to.
- Vade-Mecum de la langue française, etc. *Varsovie,* 1883. 12mo.
- BARBA, A. A. The Art of Metals; written originally in Spanish . . . Translated by the Earl of Sandwich in 1669. *Lond.* 1738. 12mo.
- BARBA, J. Étude sur l'emploi de l'acier dans les constructions, exposé de la méthode à suivre pour la mise en œuvre des tôles et barres profilées en métal fondu. 2^{me} édition. *Paris,* 1875. 8vo.
- The use of Steel for constructive purposes; translated from the French, etc. *New York,* 1875. 8vo.
- BARBE, P. Études pratiques sur la dynamite et les diverses applications à l'art militaire. *Tract. 8vo. vol. 225.* *Paris,* [1872.] 8vo.
- BARBER, —. Picturesque illustrations of the Isle of Wight. *Lond.* 1850. 8vo.
- BARBER, F. M., *Lieut., U.S.N.* Lecture on drifting and automatic movable Torpedoes, Submarine Guns, and Rockets. *Tract. 8vo. vol. 271.* *Newport,* 1874. 8vo.
- Lecture on the Whitehead torpedo. *Tract. 8vo. vol. 271.* *Newport, R.I.* 1874. 8vo.
- BARBER, J. Specification of a method of smelting and purifying metallic Ores. *Tract. 4to. vol. 31.* *Lond.* 1856. 4to.
- BARBER, J., *Capt.* A letter on Steam-navigation with India, and suggesting the best mode of carrying it into effect *vid* the Red Sea. *Tract. 8vo. vol. 163.* *Lond.* 1837. 8vo.
- "Philojohannes" unmasked, and the truth told relative to the East India Company's management of steam communication with India. *Tract. 8vo. vol. 163.* *Lond.* 1839. 8vo.
- Steam Communication with India. *Tract. 8vo. vol. 163.* *Lond.* 1839. 8vo.
- The Court of Directors of the East India Company *versus* Her Majesty's Ministers: the resolutions of the House of Commons, and the public of India and England, as regards a complete plan of steam-communication between the two empires. *Tract. 8vo. vol. 163.* *Lond.* 1839. 8vo.
- BARBER, T. W. The engineer's Sketch-book of Mechanical Movements and details employed in the design and construction of machinery, etc. *Lond.* 1889. 8vo.
- BARBIER and FENESTRE. Note sur un nouvel appareil lenticulaire, hyper-radiant, de 2^m. 66 de diamètre intérieur. *Tract. 4to. vol. 105.* *Paris,* 1886. 4to.

- BARCELONA—*Asociacion de Ingenieros Industriales*. Catalogo de la biblioteca. *Barcelona*, 1891. 8vo.
- — — *Revista tecnologico-industrial*. 1881, etc. See PERIODICAL PUBLICATIONS.
- — — *International Exhibition*, 1887–88. General Regulations. *Tract. 4to. vol. 100.* [*Barcelona*, 1887.] 4to.
- BARCLAY, T. The future Water Supply of Birmingham: a lecture, etc. *Tract. 8vo. vol. 506.* *Birmingham*, 1891. 8vo.
- BARDE, C. Salubrité des habitations et hygiène des villes. *Genève*, 1891. 8vo.
- BARDWELL, W. The alternating system: a brief account of Mr. Bardwell's "Improved method of utilizing Sewage, etc. *Tract. 8vo. vol. 143.* *London*. 1865. 8vo.
- BARENDT, A. H. Prize essay on Machine Belting. *Tract. 8vo. vol. 371.* *Liverpool*, 1883. 8vo.
- BARET, L. Cie. des chemins de fer de Paris à Lyon et à la Méditerranée. Ligne du Bourbonnais. Recueil de documens relatifs au matériel roulant. Dressé sous la direction de MM. Bazaine et Fevre. [Atlas of plates.] *Paris*, 1859. 4to. and folio.
- BARETTI, G. A Dictionary of the English and Italian languages; to which is prefixed an Italian and English grammar, etc. [8th edition.] 2 vols. *London*. 1831. 8vo.
- A new Dictionary of the Italian and English Languages, based on that of Baretti. 1873. See COMELATI, G., and DAVENPORT, J.
- A Dictionary of the Spanish and English Languages. 1854. See NEUMAN, H., and BARETTI, G.
- BARFF, F. S. An introduction to scientific Chemistry. 4th edition. *London*. 1872. 8vo.
- Carbon and certain Compounds of Carbon, treated principally in reference to heating and illuminating purposes. *London*. 1874. 8vo. (Cantor Lectures.)
- On Silicates, Silicides, Glass, and glass painting: seven lectures, etc. *London*. 1872. 8vo.
- BARIOLA, H., and HEES, P. DE. Chemins de fer de Thessalie. *Tract. 4to. vol. 89.* *Constantinople*, 1883. 4to.
- BARKER, —. Improved Tramway, as adopted for the Manchester tramways. *Manchester*, [.] 8vo.
- BARKER, D. W. See WILSON-BARKER, D.
- BARKER, G. F. Address by retiring President of the American Association, on "Some modern aspects of the Life-question." *Tract. 8vo. vol. 465.* *Salem*, 1882. 8vo.
- BARKER, W. C., *Capt., I.N.* On the Lighting up of the entrance to Bombay Harbour. *Tract. 8vo. vol. 382.* *Bombay*, 1863. 8vo.
- BARKHAUSEN, G. Biegungsspannungen in Blechen und Bändern infolge von einseitiger Verlaschung oder von Ueberlappungsverbindungen. *Tract. 4to. vol. 116.* *Berlin*, [1892.] 4to.
- Die Forth-Brücke. *Berlin*, 1889. 4to.

- BARKHAUSEN, G., NESSENIUS, —, and HOUSELLE, —.** *Erdarbeiten ; Strassenbau ; Brückenbau.* (Handbuch der Baukunde. Abt. III.) *Berlin, 1892. 8vo.*
- BARKING.** *The Barking Parish Act. 1888. Lond. 1881. folio.*
- *Report on the cultivation of Lodge Farm, Barking, by means of Sewage Irrigation. Tract. 4to. vol. 83. Lond. 1872. 4to.*
- BARKLY, Sir H.** *Royal Society of Victoria. President's inaugural address for 1860. Tract. 8vo. vol. 125. [1860.] 8vo.*
- BARLOW, C.** *The New Tay Bridge: a course of lectures, etc., 1888. Lond. 1889. folio.*
- *See also BARLOW, W. H. and C.*
- BARLOW, E.** *An exact survey of the Tide. With a preliminary treatise concerning the origin of springs, generation of rain, and production of wind. Lond. 1717. 8vo.*
- BARLOW, P.** *An account of the experiments made on board H.M.'s ships Leven, Conway, and Griper, for correcting the local attraction of those vessels. Tract. 8vo. vol. 18. Lond. 1824. 8vo.*
- *An essay on Magnetic Attractions ; particularly as respects the deviation of the compass on shipboard, etc. Lond. 1820. 8vo.*
- *An essay on the Strength and Stress of Timber, founded upon experiments ; preceded by an historical review of former theories and experiments, with numerous tables ; also an appendix, on the strength of iron, and other materials. Lond. 1817. 8vo.*
- — *2nd edition. Lond. 1824. 8vo.*
- *Experiments on the transverse Strength and other properties of Malleable Iron, with reference to its uses for railway bars, etc. Tract. 8vo. vol. 56. Lond. 1835. 8vo.*
- *An investigation into the power of Locomotive Engines, and the effect produced by that power at different velocities. Tract. 4to. vol. 41. (From the Trans. Inst. C.E.) [Lond. 1839.] 4to.*
- *A new Mathematical and Philosophical Dictionary ; comprising an explanation of the terms and principles of pure and mixed mathematics, and such branches of natural philosophy as are susceptible of mathematical investigation, etc. Lond. 1814. 8vo.*
- *New Mathematical Tables, containing the factors, squares, cubes, square roots, cube roots, reciprocals, and hyperbolic logarithms of all numbers from 1 to 10,000, etc. Lond. 1814. 8vo.*
- — *[Another edition.] Lond. 1840. 8vo.*
- *Report on the weight of the Rails, description of the chairs and fastenings, the distance of the supports, and the size of the blocks of the Liverpool and Manchester Railway. Tract. 8vo. vol. 302. Lond. 1837. 8vo.*
- *A treatise on the Manufactures and Machinery of Great Britain: to which is prefixed an introductory view of the principles of manufactures, by C. Babbage. Lond. 1836. 4to.*
- (From the Encyclopedia Metropolitana.)

BARLOW, P.—*continued*. A treatise on the Strength of Materials ; with rules for application . . . Edited by William Humber.

Lond. 1867. 8vo.

— A treatise on the Strength of Timber, cast iron, malleable iron, and other materials ; with rules for application in architecture, construction of suspension bridges, railways, &c. With an appendix on the power of locomotive engines, and the effect of inclined planes and gradients. 4th edition. *Lond.* 1837. 8vo.

— — A new edition, revised and corrected by J. F. Heather, M.A. To which is added an essay on the effects produced by causing weights to travel over elastic bars : by the Rev. Robert Willis, M.A., F.R.S. *Lond.* 1851. 8vo.

BARLOW, P. W. Comparative advantages of the Atmospheric Railway System, *etc.* *Tract.* 8vo. vol. 500. *Lond.* 1845. 8vo.

— Experiments and observations, which prove that by lighting fires at or near the top, under which a plate has been fixed so as entirely to exclude the air, great economy of coal will arise. *Tract.* 8vo. vol. 486. *Lond.* 1882. 8vo.

— An investigation of the Laws which govern the Motion of Steam Vessels, deduced from experiments. *Tract.* 4to. vol. 9.

(From Phil. Trans.)

Lond. 1834. 4to.

— Investigation of the power consumed in overcoming the Inertia of Railway Trains, *etc.* *Tract.* 8vo. vol. 82. *Lond.* 1848. 8vo.

— Observations on the Niagara Railway Suspension Bridge . . . On the practicability of connecting Liverpool and Birkenhead, and New York and Brooklyn, by wire suspension bridges of one span . . . A suggestion for a viaduct across the Holborn Valley, *etc.* Appendix. *Tract.* 8vo. vol. 127. *Lond.* 1860. 8vo.

— On the relief of London street Traffic, with a description of the Tower Subway, now shortly to be executed. *Tract.* 8vo. vol. 270. *Lond.* 1867. 8vo.

— Report to the directors of the South-Eastern Railway Company on Permanent Way. *Tract.* 4to. vol. 69. *Lond.* [1870 ?] 4to.

— Reports on the proposed new Bridge at Londonderry. 1857. See CUBITT, Sir W., and BARLOW, L. W.

— Section of the North Kent Railway, showing proposed method of supplying London with spring Water. *Lond.* [1850 ?] 8vo.

— Smoke Abatement. *Tract.* 8vo. vol. 338. *Lond.* 1882. 8vo.

— To the Directors of the S. E. Railway. On the Supply of Water to be obtained from the North Kent district. *Tract.* 8vo. vol. 88. *Lond.* [] 8vo.

— The Tower Bridge: observations to prove that a new bridge east of London is unnecessary. *Tract.* 8vo. vol. 288.

Lond. 1878. 8vo.

BARLOW, W. H. On the adaptation of different modes of illuminating Lighthouses, *etc.* *Tract.* 4to. vol. 38. *Lond.* 1837. 4to.

(From Phil. Trans.)

- BARLOW, W. H.—*continued*. On the construction of Permanent Way of Railways; with an account of the Wrought-Iron Permanent Way . . . on the . . . Midland Railway. *Tract.* 8vo. vol. 500. (From Min. Proc. Inst. C.E.) Lond. 1850. 8vo.
- On the existence (practically) of the line of equal Horizontal Thrust in Arches, and the mode of determining it by geometrical construction. *Tract.* 8vo. vol. 499. Lond. 1846. 8vo.
(From Min. Proc. Inst. C.E.)
- BARLOW, W. H., and C. Plan of the New Tay Viaduct. Lond. [1882?] 4to.
- BARNABY, J. F. Effects of Heat on the bending qualities of Iron Plates. Admiralty report. *Tract. folio.* vol. 32. Lond. 1882. folio.
- Experiments made to show the effect of repeated heating and cooling on the strength of Steel and Iron. *Tract. folio.* vol. 32. Lond. 1882. folio.
- Influence of temperature on the strength and ductility of Steel and Iron Plates. *Tract. folio.* vol. 29. Lond. 1882. folio.
- Letter and lithographs showing the results of a series of Tests made from specimens of Siemens and Bessemer Steel. *Tract. folio.* vol. 38. Sheffield, 1880. folio.
- BARNABY, Sir N. The best Ship of War. *Tract.* 8vo. vol. 528. [New York, 1893.] 8vo.
- The Naval Review of British, French, Italian, German, and Russian large ships of war; being an inspection of 253 sea-going fighting ships. Lond. [1886.] 8vo.
- BARNABY, S. W. Marine propellers. Lond. 1885. 8vo.
- — 3rd edition. Lond. 1891. 8vo.
- BARNARD, E. G. Report of a trial in the cause *Barnard v. Harford*, in the Court of Common Pleas, 1837, respecting the form and manufacture of Iron Rails. Lond. 1838. 8vo.
- BARNARD, J. G. The Delta of the Mississippi considered in relation to an "open river mouth." *Tract.* 8vo. vol. 252. [New York, 1875.] 8vo.
(From the Trans. American Society of C.E.)
- The Isthmus of Tehuantepec; being the results of a survey, *etc.* (Atlas of plates.) New York, 1852. 8vo.
- On the causes of deviation in elongated projectiles. *Tract.* 8vo. vol. 147. [New Haven,] 1860. 8vo.
(From the American Journal of Science and Arts.)
- The phenomena of the Gyroscope, analytically examined, *etc.* *Tract.* 8vo. vol. 122. New York, 1858. 8vo.
- A Report on the Defences of Washington. [Professional Papers, Corps of Engineers, U.S. Army. No. 20.] Washington, 1871. 4to.

- BARNARD, J. G.—*continued*. Report on Lighthouse Engineering, as exhibited at the Centennial International Exhibition, *etc.* *Tract.* 8vo. vol. 473. [New York,] 1879. 8vo.
(From the Trans. American Society of C.E.)
- Report on the North Sea Canal of Holland; and on the improvement of navigation from Rotterdam to the sea. [Professional Papers, Corps of Engineers, U.S. Army. No. 22.] Washington, 1872. 4to.
- BARNARD, J. G., and OTHERS. Report on the fabrication of Iron for defensive purposes, and its uses in modern fortifications; especially in works of coast defence. (Supplement.) [Professional Papers, Corps of Engineers, U.S. Army. No. 21.] Washington, 1871–2. 4to.
- BARNES, J. Report and estimate, made under the direction of the Company of Proprietors of the Leicestershire and Northamptonshire Union Canal, *etc.* *Tract.* 4to. vol. 7. Banbury, 1802. 4to.
- BARNES, J. S., *Lieut.-Commander*. Submarine Warfare, *etc.* New York, 1869. 8vo.
- BARNES, P. The present technical condition of the Steel Industry of the United States. [U.S. Geol. Survey. Bulletin No. 25.] Washington, 1885. 8vo.
- BARNES, R. Third quarterly report on the Health and Sanitary Condition of Shoreditch for the quarter ending December 27, 1856. *Tract. folio.* vol. 6. Lond. 1857. folio.
- BARNETT, E., *Capt.* The West India Pilot. 4th edition. Vol. 1. With supplement. Lond. 1883. 8vo.
- BARNETT, J. D. The warming, ventilating, and lighting of Railway Cars. *Tract.* 8vo. vol. 457. Montreal, 1887. 8vo.
(From the Trans. Canadian Soc. of C.E.)
- Workshops—their design and constructions. *Tract.* 8vo. vol. 489. Montreal, 1889. 8vo.
- BARNHAM, RICHARDSON and Co. Letters, papers, and data in reference to the merits and economy of the American cast-iron chilled disc Railway Wheels. *Tract.* 8vo. vol. 294. New York, 1877. 8vo.
- BARNS, J. W. Canal irrigation report of the Bahawalpur State, 1876. See INDIA.—BAHAWALPUR.
- BARNESLEY CANAL. Act (and amended Act) for making and maintaining the Barnesley Canal Navigation, *etc.* Lond. 1793, 1808. folio.
- Barnesley Navigation Bill. Minutes of Evidence and Speeches before the Select Committee on the Barnesley Canal and Aire and Calder. Lond. 1871. folio.
- BARNESLEY COLLIERIES. Narrative of sudden outbursts of Gas in collieries working the Barnesley thick coal and the Silkstone coal in the Barnesley Collieries. *Tract.* 8vo. vol. 477. Leeds, 1879. 8vo.

- BAROIS, J. L'irrigation en Égypte. *Paris*, 1887. 8vo.
(From the Bulletin de la Direction de l'Hydraulique Agricole.)
- Reservoirs in British India. [5th Int. Congr. Int. Nav.]
[*Paris*, 1892.] 8vo.
- BARON, H. Catalogue descriptif des modèles, instruments et dessins
des galeries de l'École nationale des ponts et chaussées. 1873.
See PARIS.—*École nationale, etc.*
- BAROZZIO, J. DE. Vignole, ou études d'architecture. Ouvrage con-
tenant le traité des cinq ordres, avec un choix de portes, fenêtres,
balustrades, acrotères, etc. : pris dans les édifices que Vignole a
bâtis, etc. 3^e édition. *Paris* [1840?] 4to.
- BARR, A. The Engineer of the Future : an introductory lecture, etc.
Tract. 8vo. vol. 476. *Leeds*, 1888. 8vo.
- James Watt and the application of science to the mechanical
arts ; an inaugural address, etc. *Tract*. 8vo. vol. 489.
Glasgow, 1889. 8vo.
- BARR, H. J., Maj.-Gen. Automatic Danger Signal for Railways.
Tract. 8vo. vol. 238. *Aberdeen*, 1874. 8vo.
- BARR, W. M. A practical treatise on high pressure Steam Boilers,
etc. *Indianapolis*, 1880. 8vo.
- Pumping Machinery, etc. *Philadelphia*, 1893. 8vo.
- BARRAL, J. A. Les irrigations dans le département de Vaucluse.
Paris, 1877. 4to.
- Les irrigations dans le département des Bouches-du-Rhône.
Rapport sur le concours ouvert en 1876, etc. 2 vols.
Paris, 1876-78. 4to.
- Manuel du drainage des terres arables. *Paris*, [1854.] 12mo.
- BARRAUD, H. Improved Chronometers. *Tract*. 8vo. vol. 465.
Lond. 1850. 8vo.
- BARRAULT, A. Politique du canal de Suez, questions techniques et
économiques. *Tract*. 8vo. vol. 112. *Paris*, 1856. 8vo.
- BARRAULT, A. and E. Le canal de Suez et la question du tracé.
Tract. 8vo. vol. *Paris*, 1856. 8vo.
- BARRE, A. A short description of the Gliding Railway on exhibition
at the Crystal Palace, Sydenham. *Tract*. 8vo. vol. 531.
Lond. 1891. 8vo.
- BARREAU, —. Étude sur les qualités et essais des ciments à prise
lente dits Portland. *Tract*. 8vo. vol. 475. [1881.] 8vo.
- BARRÉS DU MOLARD, DE, Viscount. Nouveau système de ponts
à grandes portées, ou moyen économique de construire des arches
de toutes grandeurs. *Paris*, 1827. 4to.
- BARRET, L. Mémoire sur un nouveau système de chaudières
tubulaires à courant d'eau continu. *Tract*. 4to. vol. 84.
Marseille, 1868. 4to.
- Note sur l'aménagement des ports de commerce.
Paris, 1875. 8vo.

- BARRETT, A. International Association for obtaining a uniform decimal system of measures, *etc.* 1860. See YATES, J., and BARRETT, A.
- BARRETT, J. On the construction of Fire-proof Buildings. *Tract.* 8vo. vol. 501. (From Min. Proc. Inst. C.E.) Lond. 1853. 8vo.
- BARRETT, W. F. Elementary Acoustics, and its application to the construction of buildings. Two lectures. Chatham, 1869. folio.
- On the physical properties of Manganese Steel. *Tract.* 8vo. vol. 437. 1886. 8vo.
- Sensitive Flames as illustrative of Sympathetic Vibration. [Science Lectures at South Kensington, vol. 2.] Lond. 1879. 8vo.
- BARRON, L. La Loire. Paris, 1888. 8vo.
- BARROSO, Z. Pharoes : estudos sobre a iluminação da costa do Brazil. *Tract.* 8vo. vol. 302. Lond. 1868. 8vo.
- BARROW, J. Archimedis opera : Apollonii Pergei conicorum libri iv. Theodosii sphaerica : methodo nova illustrata, et succincte demonstrata per J. Barrow. Londini, 1675. 4to.
(Contains autograph of Labelye, 1725.)
- BARROW, K. Sketch of proposed mid-channel Telegraph Stations. *Tract.* folio. vol. 11. Lond. 1869. folio.
- BARROW-IN-FURNESS.—*Free Public Library.* Annual Report. Barrow, 1885, *etc.* 8vo.
- Catalogue of the Library. Barrow, 1885. 8vo.
- BARROWMAN, J. A glossary of Scotch Mining Terms. Hamilton, 1886. 8vo.
- BARRUS, G. H. Boiler Tests. Boston, 1891. 8vo.
- BARRY, Rev. A. The architect of the new Palace at Westminster : a reply to a pamphlet by E. W. Pugin, entitled "Who was the art-architect of the Houses of Parliament?" *Tract.* 8vo. vol. 165. Lond. 1868. 8vo.
- The Life and Works of Sir Charles Barry. Lond. 1867. 8vo.
- BARRY, C., Jun. Some description of the mechanical Scaffolding used at the new Palace at Westminster, particularly in reference to the three main towers of the building. *Tract.* 4to. vol. 49.
(Read at the Inst. Brit. Archit.) [Lond. 1857.] 4to.
- BARRY, E. M. Lectures on Architecture. Delivered at the Royal Academy. *Tract.* 8vo. vol. 205. Lond. 1871. 8vo.
- [Another Series.] *Tract.* 8vo. vol. 245. Lond. 1874. 8vo.
- Lectures on Architecture delivered at the Royal Academy . . . 1874—80. Edited with introductory memoir by A. Barry. Lond. 1881. 8vo.
- The new Law Courts, and the National Gallery : facts relating to the late competitions, with a reply to portions of Mr. Street's recent pamphlet. *Tract.* 8vo. vol. 220. Lond. 1872. 8vo.

- BARRY, F. [Reports on drainage and improvement of Lands in various districts of Ireland.] *Dublin*, 1847-52. 8vo.
- BARRY, H. Russian Metallurgical Works, iron, copper, and gold, concisely described. *Lond.* 1870. 12mo.
- BARRY, J. An inquiry into the real and imaginary obstructions to the acquisition of the Arts in England. *Lond.* 1775. 8vo.
- BARRY, J. D. Report on the Claremont Peak gravel mine, called the Miriam and Caroline claims. *Tract. folio. vol.* 29. *San Francisco*, 1880. folio.
- Report on the property of the Homer Mill and Mining Company, Homer Mining District. *Tract. 8vo. vol.* 324. *San Francisco*, 1880. 8vo.
- Report on the proposed Eocene Tunnel at Big Bend on the north fork of the Feather River. *Tract. folio. vol.* 30. *San Francisco*, 1880. folio.
- BARRY, J. W. Presidential Address to the Junior Engineering Society, November, 1893. *Tract. 8vo. vol.* 522. *Lond.* 1893. 8vo.
- Railway Appliances: a description of details of railway construction subsequent to the completion of the earthworks and structure. *Lond.* 1876. 12mo.
- Report on the Pier at Ballycottin. 1889. *See BALLYCOTTIN.*
- Ribble Navigation Commission. Reports, etc. 1889-91. *See NARES, Sir G. S., HARTLEY, Sir C. A., and BARRY, J. W.*
- BARRY, J. W., and BRAMWELL, Sir F. J. Railways and Locomotives. Lectures delivered at the School of Military Engineering at Chatham, 1877. *Lond.* 1882. 8vo.
- BARRY, P. Dockyard Economy and Naval Power. *Lond.* 1863. 8vo.
- The Dockyards and the private shipyards of the Kingdom. 2nd edition. *Tract. 8vo. vol.* 387. *Lond.* 1863. 8vo.
- The Dockyards, shipyards, and marine of France. *Lond.* 1864. 8vo.
- Report made to the Cork Harbour Commissioners on the general improvement of the harbour and river of Cork. *Tract. 8vo. vol.* 305. *Cork*, 1874. 8vo.
- Shoburness and the Guns: a philosophical discourse. *Lond.* 1865. 8vo.
- BARRY, T. D. The present state of the Sewage question. *Tract. 8vo. vol.* 307. *Liverpool*, 1870. 8vo.
- BARRY DOCKS AND RAILWAY. Report by the Board of Trade . . . on the Classification of Merchandise Traffic, and Schedule of Maximum Rates, etc. *Lond.* 1891. folio.
- BARTELS, H. Bericht über einige sogenannte Secundär-bahnen insbesondere Schmalspurbahnen in Amerika. *Tract. 8vo. vol.* 289. *Berlin*, 1878. 8vo.

- BARTELS, H.—*continued*. Betriebs-Einrichtungen auf amerikanischen Eisenbahnen. I. Bahnhofsanlagen und Signale. *Berlin*, 1879. 8vo.
- BARTHÉLEMY, A. J. Mémoire sur l'établissement d'une communication entre Bruxelles et Charleroy, au moyen d'un canal de petite dimension, à l'instar de ceux qui sont en usage en Angleterre et dans l'Amérique septentrionale, etc. *Tract. 8vo. vol. 11. Bruxelles*, 1817. 8vo.
- BARTHÉLEMY SAINT-HILAIRE, J. B. Lettres sur l'Égypte. *Paris*, 1857. 8vo.
- BARTHOLOMEW, A. Hints relative to the construction of fire-proof buildings, occasioned by the late destruction of the Royal Exchange, etc. *Tract. 8vo. vol. 59. Lond.* 1839. 8vo.
- BARTHOLOMEW, J. Handy reference Atlas of the World, with complete index and geographical statistics. *Lond.* 1887. 8vo.
- BARTHOLOMEW, J. G. The pocket Gazetteer of the World: a dictionary of general geography. *Lond.* 1888. 12mo.
- BARTLETT, —. Index Geologicus. *Exeter*, [.] 8vo.
- BARTLETT, J. H. District Steam Supply: heating buildings by steam from a central source. *Tract. 8vo. vol. 381. Montreal*, 1884. 8vo.
- The Manufacture, consumption and production of Iron, steel and coal in the dominion of Canada. *Tract. 8vo. vol. 421. Montreal*, 1885. 8vo.
- BARTLETT, W. H., and OTHERS. Finden's views of the ports, harbours, and watering-places of Great Britain. With descriptions, continued by W. H. Bartlett. 2 vols. *Lond.* [.] 8vo.
- BARTOL, B. H. A treatise on the Marine Boilers of the United States. *Philadelphia*, 1851. 8vo.
- BARTOLE, *Da Sasferrato*. La Tiberiade . . . Del modo di dividere l'alluvione, l'isole, et gl'alvei. Con l'annotazioni et espositio di Claudio Tobaldutii da Montalboddo. *Roma*, 1587. 8vo.
- BARTON, J. On the Economic Distribution of Material in the sides, or vertical portion of Wrought-Iron Beams. *Tract. 8vo. vol. 499. (From Min. Proc. Inst. C.E.) Lond.* 1856. 8vo.
- BARTON MOSS, near *Manchester*. Report . . . on the . . . Explosion at a small Firework Factory at Barton Moss . . . 26th October, 1892. *Lond.* 1893. folio.
- BARUS, C. The Compressibility of Liquids. [*U.S. Geol. Survey. Bulletin No. 92.*] *Washington*, 1892. 8vo.
- High Temperature Work in Igneous Fusion and Ebullition, chiefly in relation to Pressure. [*U.S. Geol. Survey. Bulletin No. 103.*] *Washington*, 1893. 8vo.
- The Mechanism of Solid Viscosity. [*U.S. Geol. Survey. Bulletin No. 94.*] *Washington*, 1892. 8vo.
- Subsidence of Fine Solid Particles in Liquids. [*U.S. Geol. Survey. Bulletin No. 36.*] *Washington*, 1886. 8vo.

- BARUS, C.—*continued*. The Viscosity of Solids. [*U.S. Geol. Survey. Bulletin No. 73.*] *Washington, 1891. 8vo.*
- The Volume Thermodynamics of Liquids. [*U.S. Geol. Survey. Bulletin No. 96.*] *Washington, 1892. 8vo.*
- BARUS, C., and STROUHAL, V. The Electrical and Magnetic Properties of the Iron-Carburets. [*U.S. Geol. Survey. Bulletin No. 14.*] *Washington, 1885. 8vo.*
- Physical Properties of the Iron-Carburets. [*U.S. Geol. Survey. Bulletin No. 35.*] *Washington, 1886. 8vo.*
- BARWICK. Report . . . on the destruction by explosion and fire of a Drying-House at the Factory of the Smokeless Powder Company at Barwick, on 26th May, 1893. *Lond. 1893. folio.*
- BASHFORD, J. L. Elementary Education in Saxony. *Tract. 8vo. vol. 333.* *Lond. 1881. 8vo.*
- BASHFORTH, F. Description of a Chronograph, adapted for measuring the varying velocity of a body in motion through the air, and for other purposes. *Tract. 8vo. vol. 214.* *Lond. 1866. 8vo.*
- Description of a machine for finding the numerical roots of equations, and tracing a variety of useful curves. (*Brit. Assoc. 1845.*) *Tract. 8vo. vol. 336.* [*Lond.*] 1845. 8vo.
(Lithographed.)
- Reprint of "A description of a machine for finding the numerical roots of equations and tracing . . . curves." *Tract. 8vo. vol. 518.* *Cambridge, 1892. 8vo.*
- A general Table for facilitating the calculation of Earthworks for railways, canals, &c., with a table of proportionate parts. *Lond. 1847. 8vo.*
- A mathematical treatise on the Motion of Projectiles, founded chiefly on the results of experiments made with the author's chronograph. *Lond. 1873. 8vo.*
- On the Resistance of the Air to the motion of elongated Projectiles having variously formed heads. *Tract. 4to. vol. 68.*
(From the Philosophical Transactions.) [*Lond. 1868.*] 4to.
- Tables of remaining Velocity, time of flight, and energy of various Projectiles calculated from the results of experiments made with the Bashforth chronograph, 1865–70. *Tract. 8vo. vol. 214.* *Lond. 1871. 8vo.*
- BASINGSTOKE CANAL. An Act for making a navigable Canal from Basingstoke . . . to communicate with the River Wey, *etc.* (Imperfect.) *Lond. 1778. folio.*
- Observations on the proposed junction Canal between Winchester and the Basingstoke Canal; with an appendix. *Tract. 8vo. vol. 5.* *Lond. 1808. 8vo.*
- BASSINGHYLL. Report on an Explosion at Basinghyll Gunpowder Mills, June 15th, 1883, by Capt. J. P. Cundill. *Lond. 1883. folio.*

- BASSET, N. Guide pratique du fabricant de sucre. Nouvelle édition. 3 vols. *Paris*, 1872-75. 8vo.
- BASSETT, A. On Patent Fuel, or the utilisation of small-coal. *Tract.* 8vo. vol. 161. *Newport*, 1867. 8vo.
- BASSETT, J. D. Elementary thoughts on Political Economy. *Tract.* 8vo. vol. 63. *Lond.* 1819. 8vo.
- BASTELICA, M. C. DE. Les torrents, leurs lois, leurs causes, leurs effets. *Paris*, 1874. 8vo.
- BATAAFSCH GENOOTSCHAP DER PROEFONDERVIND-LIJKE WIJSBEGEERTE. Nieuwe verhandeligen. 2 vols. *Rotterdam*, 1844-51. 4to.
- BATAVIA. Description de "Tandjong Priok," port de Batavia. *Tract.* 8vo. vol. 481. *La Haye*, 1888. 8vo.
- Specification and conditions for the construction of a new harbour for Batavia at Tandjong Priok; with a canal and a railway from Batavia to the new harbour. *Tract. folio.* *The Hague*, 1876. folio.
- BATE, J. Emigration to the British colonies of North America, Australia, New Zealand, the Cape of Good Hope, and Natal, showing their extent, products, resources, etc. *Tract.* 8vo. vol. 140. *Lond.* 1862. 8vo.
- BATEMAN, F. F. Reply to the Montreal Harbour Engineer's Report on the St. Lawrence Bridge and manufacturing scheme. *Tract.* 4to. vol. 89. *Montreal*, 1882. 4to.
- BATEMAN, J. F. LA T. Belfast Waterworks. Report on the supply of Water to the town of Belfast, together with a report on the improvement of the old works, by C. Lanyon; and analyses of water, by Professor T. Andrews. *Tract.* 8vo. vol. 194. *Manchester*, 1856. 8vo.
- City of Buenos Ayres improvements. Report on the Drainage and Sewerage and Water-supply of the city of Buenos Ayres. *Lond.* 1871. folio.
- Description of the Manchester Waterworks. *Tract.* 8vo. vol. 194. *Birmingham*, 1866. 8vo.
- Dundee Corporation Waterworks. Observations on the various routes which have been proposed for conveying water from Lintrathen to Dundee. *Tract.* 8vo. vol. 215. *Westminster*, 1872. 8vo.
- Glasgow Corporation Waterworks. City piping. Report on the rearrangement and extension of the water-pipes in the city. Appendices. *Tract.* 8vo. vol. 110. *Glasgow*, 1858. 8vo.
- Glasgow Waterworks. Supply of Water from Loch Katrine. Summary of description given to Section G. of the British Association, etc. *Tract.* 8vo. vol. 194. 1859. 8vo.
- History and description of the Manchester Waterworks. *Lond.* 1884. 4to.

BATEMAN, J. F. LA T.—*continued*. Inquiry into the extent and causes of the Shannon Floods. *Tract*. 8vo. vol. 262.

Dublin, 1863. 8vo.

— Irwell Floods, 1866. Report to the Corporation of Manchester. *Tract*. 8vo. vol. 169. *Manchester*, 1868. 8vo.

— Meteorology. Rainfall. Read before the Victoria Institute. *Tract*. 8vo. vol. 354. *Lond.* [1881?] 8vo.

— Metropolis Water Supply. On the supply of water to London from the sources of the river Severn. *Tract*. 8vo. vol. 151. *Westminster*, 1865. 8vo.

— Observations on the relations which the fall of Rain bears to the water flowing from the ground; and report upon the fall of rain along the lines of the Rochdale, Ashton-under-Lyne, and Peak Forest canals, and at other places during the year 1844. *Tract*. 8vo. vol. 80. *Manchester*, 1845. 8vo.

— On a constant Water-supply for London. *Tract*. 8vo. vol. 194. *Westminster*, 1887. 8vo.

— On the present state of our knowledge on the supply of Water to Towns. *Tract*. 8vo. vol. 110. *Lond.* 1856. 8vo.

(From the Report of the British Association.)

— Port of Buenos Ayres. Reports to Señor Don P. Agote, the Minister of Finance of the province of Buenos Ayres, on improved Harbour accommodation. *Lond.* 1871. folio.

— Port of Ipswich. Report on the proposed new Lock Entrance and improvements in the river Orwell. *Tract*. 4to. vol. 90. 1872. 4to.

— Reports on the large Sluice Cocks or valves employed in the execution of the Loch-Katrine Waterworks. *Tract*. 8vo. vol. 140. *Glasgow*, 1859. 8vo.

— Reports on the various schemes for supplying Glasgow with Water, *etc.* *Tract*. 8vo. vol. 110. *Manchester*, 1853. 8vo.

— Report to the corporations of Edinburgh, Leith, and Portobello. *Tract*. 8vo. vol. 306. 1869. 8vo.

— Returns of the Rainfall in the Glasgow, Manchester, Ashton, Dewsbury, Halifax, Blackburn, Stockport, Oldham and Batley waterworks districts for 1866–1868 and 1873–1883. 4to. 1866–1868. *Tract*. folio. vols. 35 and 36. *Westminster*, 1867–83. folio.

— — 1884. *Tract*. folio. vol. 34. *Lond.* 1884. 8vo.

— — 1885. *Tract*. 4to. vol. 97. *Lond.* 1885. 4to.

— — 1886. *Lond.* 1886. 4to.

— — 1887–88, by Bateman, Parsons and Bateman. *Lond.* 1887–88. 4to.

— Some account of the Suez Canal. (*Suez Canal Tracts*. Vol. 2.) (From the Proceedings of the Royal Society.) 1870. 8vo.

- BATEMAN, J. F. LA T., and REVV, J. J. Channel Railway: description of a proposed cast-iron tube for carrying a railway across the Channel between the coasts of England and France. *Tract.* 4to. vol. 61. *London*. 1869. 4to.
- BATES, O. Pine-stringers and floor-beams for bridges. *Tract.* 8vo. vol. 510. [*New York*,] 1890. 8vo.
(From the Trans. Am. Soc. C.E.)
- BATESON, P. Fuel Purification. *Tract.* 8vo. vol. 519. [*London*. 1892.] 8vo.
- BATESON, PETER. Some papers relating to the general Draining of Marsh Land in the county of Norfolk; with Mr. Berners's objections and proposals, etc. *Tract.* 8vo. vol. 12. 1710. 8vo.
- BATH AND BRISTOL CANAL. Act for Bath and Bristol Canal and Bristol Waterworks. *London*. 1811. folio.
- Prospectus relative to the Bath and Bristol Canal. *Tract.* 8vo. vol. 66. *London*. 1811. 8vo.
- BATHO, W. F. Oude and Rohilkund railway bridge over the Ganges at Benares. Specification of steel superstructure. *Tract.* folio. vol. 31. *London*. 1881. folio.
- BATHURST, N.S.W. Report by W. Clark on the Water-Supply of Bathurst. *Sydney*, 1877. folio.
- BATLEY. Report by Major J. P. Cundill on the circumstances attending an accident at a display of fireworks at Batley on the 24th December, 1886. *London*. 1887. folio.
- BATTELY, J., Archdeacon. The antiquities of Richborough and Reculver. *London*. 1774. 12mo.
- BATTEN, J., Jun. The Stanneries Act, 1869. Edited with notes, etc. *London*. 1873. 8vo.
- BATTERSBY, C. J. Inny district, counties of Meath, West Meath, Cavan and Longford. Supplemental report to the commissioners, showing the present state of the works, etc. *Dublin*, 1851. 8vo.
- BATTYE, R. F. Upon certain important matters in relation to the areas of Circles and Squares: a geometrical brochure. *Tract.* 8vo. vol. 172. *London*. 1869. 8vo.
- BATURITÉ RAILWAY. Estrada de Ferro de Baturité. [Album of photographs.] [1880.] folio.
- BAUDE, J. J. De l'enquête sur les fers. *Tract.* 8vo. vol. 298. *Paris*, 1829. 8vo.
- De la Loire au-dessus de Briare; aperçu des avantages qui résulteraient . . . de l'ouverture d'un canal latéral à cette rivière, etc. *Tract.* 8vo. vol. 11. *Paris*, 1822. 8vo.
- BAUDOT, M. Le nivellement général de la France et le nivellement de précision de la Suisse. *Tract.* 8vo. vol. 313. *Paris*, 1874. 8vo.
- BAUDRAND, R. P. Les carrières maritimes et les mœurs casanières. *Tract.* 8vo. vol. 300. *Paris*, 1870. 8vo.

- BAUDRILLART, H. *Manuel d'Économie politique*. 5^{me} édition. *Paris*, 1883. 8vo.
- BAUDRY, C. *Chemins de fer de Paris à Lyon et à la Méditerranée*. Note sur les locomotives compound. *Tract. folio. vol. 48*. *Paris*, 1889. folio.
- BAUDSON, E. *Tracé des chemins de fer, routes, canaux et tramways, etc.* *Paris*, [1884.] 8vo.
- BAUER, G. *Gedächtnissrede auf Otto Hesse*. *Tract. 4to. vol. 113*. *München*, 1883. 4to.
- BAUERMAN, H. *Coal*. *Tract. 4to. vol. 80*. *Edinb.* 1877. 4to.
(From the *Encyclopedia Britannica*, 9th edition.)
- A descriptive catalogue of the Geological, Mining, and Metallurgical Models in the Museum of Practical Geology. *Lond.* 1865. 8vo.
- Note on a rare Blast Furnace Slag of the composition of gehlenite. *Tract. 8vo. vol. 425*. *Lond.* 1886. 8vo.
- A text-book of descriptive Mineralogy. *Lond.* 1884. 8vo.
- A treatise on the Metallurgy of Iron, etc. *Lond.* 1868. 8vo.
- — 4th edition. *Lond.* 1874. 8vo.
- — 5th edition. *Lond.* 1882. 8vo.
- — 6th edition, enlarged. *Lond.* 1890. 8vo.
- Text-book of systematic Mineralogy. *Lond.* 1881. 8vo.
- BAUERNFEIND, C. M. von. *Das bayerische Präcisions-Nivellament*. Siebente Mittheilung. *Tract. 4to. vol. 113*. *München*, 1884. 4to.
- *Elemente der Vermessungskunde: ein Lehrbuch der technischen Geometrie*. [5th edition.] 2 vols. *Stuttgart*, 1876. 8vo.
- *Gedächtnisrede auf Joseph von Fraunhofer zur Feier seines hundertsten Geburtstags*. *Tract. 4to. vol. 113*. *München*, 1887. 4to.
- *Vorlegeblätter zur Brückenbaukunde*. *München*, 1853. 4to.
- BAUM, C. *Les Chemins de Fer de l'État et les chemins de fer concédés à des compagnies privées*. *Tract. 8vo. vol. 279*. *Lille*, 1876. 8vo.
- *Un Chemin de Fer militaire en Prusse*. *Tract. 8vo. vol. 304*. *Paris*, 1877. 8vo.
- BAUMANN, A. *Tafeln zur Gasometrie*. *München*, 1885. 8vo.
- BAUMEISTER, R. *Städtisches Strassenwesen und Städtereinigung, etc.* [Handbuch der Baukunde, Abt. III.] *Berlin*, 1890. 8vo.
- *The Cleaning and Sewerage of Cities: adapted from the German, by J. M. Goodell*. *New York*, 1891. 8vo.
- BAUMHAUER, E. H. von. *The Teredo navalis, and the means of preserving wood from its ravages*. *Tract. 8vo. vol. 288*. 1878. 8vo.

- BAUSCHINGER, J. *Elemente der graphischen Statik.* München, 1871. 4to.
- *Indicator-Versuche an Locomotiven, angestellt unter Mitwirkung des Königl. Maschinenmeisters Zorn in Augsburg.* Tract. 4to. vol. 69. Leipzig, 1868. 4to.
- *Mittheilungen aus dem mechanisch-technischen Laboratorium der K. technischen Hochschule in München.* See MUNICH.—*Königliche technische Hochschule.*
- *Versuche über Elasticität und Festigkeit verschiedener Materialien angestellt in der Baierischen Lands-Industrie-Gewerbe- und Kunstausstellung in Nürnberg.* Tract. 4to. vol. 111. München, 1882. 4to.
- BAUSCHINGER, J., and OTHERS. *Beschlüsse der Conferenzen zu München am 22–24 September, 1884, und Dresden am 20 und 21 September, 1886, über einheitliche Untersuchungs-Methoden bei der Prüfung von Bau und Constructions-Materialien auf ihre mechanischen Eigenschaften.* Tract. 8vo. vol. 457. München, 1887. 8vo.
- BAVIER, S. *Die Strassen der Schweiz.* Zurich, 1878. 4to.
- BAYER Y BOSCH, J. *Construcciones é industrias rurales.* 2 vols. Barcelona, 1889–90. 8vo.
- BAYERISCHER ARCHITEKTEN- UND INGENIEUR-VE-
REIN. *Zeitschrift.* Vols. 6–8. München, 1874–77. 4to.
(Title changed in 1878 to “*Zeitschrift für Bankunde*,” See PERIODICAL PUBLICATIONS.)
- BAYLDON, J. S. *The art of Valuing Rents and Tillages, and the tenant's right on entering and quitting farms . . . 3rd edition, corrected.* Lond. 1827. 8vo.
- BAYLDON, R. *Advantages of reducing the Hours of the Miner's labours.* Tract. 8vo. vol. 284. Leeds, 1860. 8vo.
- BAYLE, E. *Cours de minéralogie et de géologie.* Tract. 4to. vol. 94. (Lithographed.) Paris, 1869. 4to.
- BAYLES, J. C. *House Drainage and Water Service.* New York, 1882. 8vo.
- BAYLEY, T. *The Assay and Analysis of Iron and Steel, iron ores and fuel.* Lond. 1884. 8vo.
- BAYLIS, B. *On Puddling.* Lond. 1866. 12mo.
- BAYLIS, E. A. *Reports in relation to the Advertising Stations (Rating) Act, 1889.* 1891. See HAYWOOD, W., and BAYLIS, E. A.
- BAYLISS, J. *Mansfield and Southwell Railway.* [Photographs.] Nottingham, 1872. 4to.
- BAYNES, J. A. *Indian Railways. Comparative statement of construction, cost, receipts, working charges, and net earnings, for the years 1871–74.* Tract. folio. vol. 36. Lond. 1872–75. folio.
- *Memorandum on the cost, traffic and working of the railways in the United Kingdom, and in India, for the years 1873 and 1874, compared with 1872 and 1873.* Tract. folio. vol. 36. Lond. 1874–75. folio.

- BAZAINE, D., and CHAPERON, —. *Chemins de fer d'Alsace, etc.*
Paris, [1844.] 4to.
- BAZALGETTE, C. N. London Water Supply. *Tract.* 8vo. vol. 378.
Lond. 1884. 8vo.
- The Sewage Question ; with an abstract of the discussion upon
the paper. *Tract.* 8vo. vol. 372. Lond. 1877. 8vo.
[(From Min. Proc. Inst. C.E.)]
- BAZALGETTE, Sir J. W. Communications between the north and
south of the Thames below London Bridge. *Tract.* 8vo. vol. 369.
Lond. 1882. 8vo.
- Data employed in determining the sizes and estimating the cost
of the works designed for the Main Drainage of the Metropolis.
Tract. 8vo. vol. 108. Lond. 1855. 8vo.
- A lecture on the Main Drainage of the Metropolis, etc. *Tract.*
8vo. vol. 105. Lond. 1857. 8vo.
- Letter from the Thames conservators relative to the deposit in
the bed of the river at Halfway Reach. *Tract.* 8vo. vol. 261.
Lond. 1875. 8vo.
- Letter to the Lower Thames Valley Main Sewerage Board.
MS. Lond. 1879. folio.
- Metropolitan Bridges. Report as to repairs urgently necessary.
Tract. 8vo. vol. 443. Lond. 1880. 8vo.
- Metropolitan Commission of Sewers. Reports by the engineers,
on the extension of the late Mr. F. Forster's plan for the main
drainage of the districts south of the Thames and modification of
its branches. Appendix. *Tract.* 8vo. vol. 108.
Lond. 1855. 8vo.
- Metropolitan Main Drainage and intercepting works. Contract
drawings. 15 vols. Lond. 1859-73. folio.
- Containing, Northern division—
Abbey Mills pumping station.
Main line and Hackney Wick branch.
Middle level sewer.
Northern low level sewer.
Northern outfall reservoir.
Northern outfall sewer.
Western sewers.
- Southern division—
Deptford pumping establishment, engines and pumps.
Engine-houses, reservoirs, etc., at Crossness Point.
Pumping engines at Crossness Point.
Southern high level sewer.
Southern low level sewer, Bermondsey Branch.
Southern low level sewer, main line and Bermondsey
branch.
Southern outfall sewer.

BAZALGETTE, Sir J. W.—*continued*. Metropolitan Main Drainage and intercepting works. Specifications. 10 vols.

Lond. 1859–73. folio.

Containing, Northern division—

Middle level sewer.

Northern low level sewer.

Northern outfall sewer.

Southern division—

Deptford pumping establishment, engines and pumps.

Engine-house and reservoirs, Crossness Point.

Pumping-engines, Crossness Point.

Southern high level sewer.

Southern outfall sewer.

— On the Metropolitan system of Drainage, and the interception of the sewage from the river Thames. *Tract.* 8vo. vol. 478.

(From the Min. of Proc. Inst. C.E.) **Lond.** 1865. 8vo.

— Reply to the Lower Thames Valley Main Sewerage Board. MS. **Lond.** 1879. folio.

— Report as to the use of Asphalte for foot Pavements. *Tract.* 8vo. vol. 478. **Lond.** 1871. 8vo.

— Report on an Inspection of Manure and Chemical Works, etc. 1865. See LETHBY, H., and BAZALGETTE, Sir J. W.

— Report on [J. W. Bazalgette's] connection with a contract for the execution of certain works at Odessa. (Met. Board of Works.) *Tract.* 8vo. vol. 152. **Lond.** 1863. 8vo.

— Report on the Sewage interception and main drainage of the districts north (south) of the Thames. *Tract.* 8vo. vol. 133, 108. **Lond.** 1856. 8vo.

— Report on the Sewerage and Sanitary Condition of Brighton. *Tract.* 8vo. vol. 511. **Brighton,** 1883. 8vo.

— Report on the tenders for the southern Sewage of the Metropolis. 1867. *Tract.* 8vo. vol. 478. **Lond.** 1867. 8vo.

— Report on the tenders for the southern Sewage, with appendices containing the tenders, and the communications referred to therein. *Tract.* 8vo. vol. 478. **Lond.** 1865. 8vo.

— Report on the whole question of the northern and southern Drainage, with comparative estimates of different points of outfall and modes of disposing of the sewage. *Tract.* 8vo. vol. 152. **Lond.** 1856. 8vo.

— Report relative to the requirements which the Main Drainage is, and is not intended to answer. *Tract.* 8vo. vol. 478. **Lond.** 1871. 8vo.

— Report upon metropolitan and other Railway schemes of session 1864. **Lond.** 1864. 8vo.

— Report upon metropolitan Tramways, 1871. **Lond.** 1870. 8vo.

— Report upon the Drainage and Water supply of Rugby, Sandgate, Tottenham, St. Thomas's, Exeter, and Barnard Castle. *Tract.* 8vo. vols. 108, 358. **Lond.** 1854. 8vo.

BAZALGETTE, Sir J. W.—*continued*. Report upon the position, character, and cost of a proposed Bridge over the Thames below London Bridge. *Tract. 8vo. vol. 309.* *Lond. 1878. 8vo.*

— Reports on the Boring operations at the Crossness pumping station, with communications on the subject. *Tract. 8vo. vol. 406.*

Lond. 1869. 8vo.

— Further report: with communication from F. E. Houghton. *Tract. 8vo. vol. 406.* *Lond. 1869. 8vo.*

— Reports relative to the experimental operations of the Native Guano Company. 1873. *See NATIVE GUANO COMPANY.*

— Reports upon Metropolitan Railway and other schemes, 1867, 1871, and 1874. *Lond. 1867, 71, 74. 8vo.*

— A short descriptive account of the Thames Embankment, and of the Abbey Mills pumping station. 30th July, 1868. *Tract. 8vo. vol. 478.* *Lond. 1868. 8vo.*

— Thames Conservancy and Main Drainage Outfalls. Report on the arbitration. *Tract. 8vo. vol. 358.* *Lond. 1880. 8vo.*

— Thames Sewerage Commission. Description of plan for purifying the Thames from Sewage between the Metropolis and Windsor. *Tract. 8vo. vol. 247.* *Lond. 1871. 8vo.*

— *See also, LONDON.*—[*Drainage*], [*Lighting*], [*Sewers*], [*Water-Supply*], *etc.*

— *See ROE, J.* Report in respect of . . . the Northern Drainage. Together with the reports . . . of J. W. Bazalgette, *etc.* 1854.

BAZALGETTE, Sir J. W., and OTHERS. Report on the Diversion of the Sewage of Cambridge. *See CAMBRIDGE.*

— Reports . . . upon the condition of the river Thames with reference to certain allegations contained in a report dated Oct. 15, 1877, by Capt. Calver, R.N. *Tract. 8vo. vol. 288.* And Appendix, map. *Tract. folio. vol. 30.* *Lond. 1878. 8vo. and folio.*

BAZIN, H. *Expériences nouvelles sur l'écoulement en déversoir.* *Paris, 1888–1890. 8vo.*

— Recent experiments on the Flow of Water over Weirs. Translated by A. Marichal and J. C. Trautwine, jun. *Tract. 8vo. vol. 514.* [*Philadelphia,*] 1888. 8vo.

(From "*Annales des Ponts et Chaussées.*")

— *Recherches hydrauliques, etc.* 1865. *See DARCY, H., and BAZIN, H.*

BAZLEY, T. The Barton Aqueduct. *Tract. 8vo. vol. 404.* *Manchester, 1859. 8vo.*

BEACH, A. E. The Pneumatic Dispatch, with illustrations; including descriptions of sub-aqueous and other tunnels. *New York, 1868. 8vo.*

BEAMISH, J. C. Observations on the present state of Naval Architecture in Great Britain. *Tract. 8vo. vol. 286.* *Cork, 1836. 8vo.*

BEAMISH, R. *Memoir of the life of Sir M. I. Brunel.*

London. 1862. 8vo.

BEARDMORE, N. *Hydraulic Tables to aid the calculation of Water and Mill Power, water supply, drainage and navigable rivers: with synopsis of rainfall in Great Britain, etc.*

Tract. 8vo. vol. 375.

London. 1850. 8vo.

— [Another edition.]

London. 1852. 8vo.

— Letter to Viscount Ebrington on proposed modifications and extensions of the Water Supply to the borough of Plymouth.

Plymouth, 1848. 8vo.

— *Manual of Hydrology, etc.*

London. 1862. 8vo.

— Report on the improvements of the River Lee navigation.

8vo. vol. 173.

Hertford, 1859. 8vo.

— Suggestions for a new Street through the city of London, from Waterloo Bridge to the Commercial Road, with a leading aqueduct sewer, from the extreme west of the metropolis to the Thames at Barking Creek, etc.

Tract. 8vo. vol. 88.

London. 1850. 8vo.

BEARDMORE, S. *The Globe Telegraph: an essay on the use of the earth for the transmission of electric signals. (Appendices.)*

8vo. vol. 119.

London. 1859. 8vo.

— Terra-Voltaism: remarks on the application of a terra-voltaic couple to submarine telegraphs.

Tract. 8vo. vol. 127.

London. 1860. 8vo.

BEARDMORE, W. L. *The Drainage of Habitable Buildings.*

London. 1892. 8vo.

BEARDSLEE, L. A. *Experiments on the Strength of Wrought Iron and of Chain Cables. Revised and abridged by W. Kent.*

New York, 1879. 8vo.

BEATON, A. C. *Quantities and Measurements; how to calculate and take them . . . 4th edition.*

London. 1875. 8vo.

— [Another edition.]

London. 1885. 8vo.

BEATSON, R. *An Essay on the comparative advantages of vertical and horizontal Windmills: containing a description of an horizontal windmill and water-mill, upon a new construction, etc.*

8vo. vol. 22.

London. 1798. 8vo.

BEAUDEMOULIN, L. A. *Considérations sur la navigation des rivières et description d'un nouveau système de barrage et d'écluse propre à leur procurer à peu de frais une canalisation complète.*

Tract. 4to. vol. 47.

[1860?] 4to.

(Lithographed.)

— *Études sur une propriété spéciale du sable et sur ses applications.*

Tract. 8vo. vol. 235.

Paris, 1874. 8vo.

— *Mémoire sur quelques procédés, outils, machines, employés à la construction des radiers en béton du pont de Tours.*

8vo. vol. 145.

Paris, 1841. 8vo.

- BEAUDEMOULIN, L. A.—*continued*. Recherches théoriques et pratiques sur la fondation par immersion des ouvrages hydrauliques, etc. *Tract.* 4to. vol. 47. *Paris*, 1829. 4to.
- BEAU DE ROCHAS, A. Aménagement des cours d'eau à débit intermittent. *Vincennes*, 1889. 8vo.
- BEAUFORT, Sir F. Notice of Rear-Admiral Sir F. Beaufort. *Tract.* 8vo. vol. 134. *London*: 1858. 8vo.
- Report on the Docks at Birkenhead, etc. 1851. See STEPHENSON, R., and BEAUFORT, F.
- BEAUFOY, M., Col. Nautical and Hydraulic Experiments, with numerous scientific miscellanies. 3 vols. *London*. 1834. 4to.
 (Incomplete; wants 2nd and 3rd vols.)
- BEAUMONT, A. Hints for preventing damage by Fire in the construction and warming of buildings. *Tract.* 8vo. vol. 267. *London*. 1835. 8vo.
- Suggestions for a Thoroughfare through the metropolis, with similar additions to St. James's and Hyde Parks. *Tract.* folio. vol. 29. [1860.] folio.
- BEAUMONT, F. W. Report on a design for the Improvement and deepening of the Bay and Harbour of Dublin, and of the river Anna Liffey, etc. *Tract.* folio. vol. 10. *Dublin*, 1839. folio.
- BEAUMONT, G. B. D. The Law of Fire and Life Insurance, with the latest decisions, etc. 2nd edition. *London*. 1846. 8vo.
- BEAUMONT, J. B. A. L. L. É. DE. See ÉLIE DE BEAUMONT, J. B. A. L. L.
- BEAURIN-GRESSIER, —. Dues on Inland Navigation. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.
- BEAUREGARD, T. DE. Chemin de fer métropolitain parisien. Comparaison des deux principaux projets. *Tract.* 8vo. vol. 365. *Paris*, 1883. 8vo.
- BEAUTEUPS-BEAUPRÉ, C. F. An Introduction to the practice of Nautical Surveying and the construction of sea-charts. Translated from the French by Capt. R. Copeland, with an appendix containing Mr. Dalrymple's essay on marine surveying; and the description of observations by which the longitudes of places on the coast of Australia . . . have been settled by Capt. M. Flinders, R.N. *London*. 1823. 4to.
- BEAZELEY, A. On Coast Fog-Signals. *Tract.* 8vo. vol. 218. *London*. 1872. 8vo.
- Tables of Circular Arcs in terms of radius: calculated to twelve places of decimals. *Tract.* 8vo. vol. 172. *London*. [1869?] 8vo.
- Tables of Tangential Angles and multiples for setting out curves from 5 to 200 radius. *London*. 1865. 8vo.
- BECHMANN, G. De la distribution dans les villes de deux eaux de qualité différente par des canalisations distinctes. [1891.] folio.
- Salubrité urbaine; distributions d'eau: assainissement. *Paris*, 1888. 8vo.

- BECK, R. A cursory view of a proposed Canal from Kendal to the Duke of Bridgwater's canal, *etc.* 1769. See BURDETT, P. P., and BECK, R.
- BECK VON NORDENAU, O., and JUDA, A. Der Bau der Eisenbahn-Brücke über die Save bei Brood, 1878-79. *Wien*, 1880. 8vo.
- BECKENSTEINER, C. Études sur l'électricité. Traitement de la chorée ou danse de St. Guy par l'électricité statique. *Tract.* 8vo. vol. 446. *Paris*, 1860. 8vo.
- BECKER, A. R. von. Arktische Reise der englischen Yacht Pandora, im Jahre 1876, unter Commando Capt. A. Young. *Tract.* 8vo. vol. 314. *Pola*, 1878. 8vo.
- BECKER, B. H. Scientific London. *Lond.* 1874. 8vo.
- BECKER, G. F. Geology of the Comstock Lode and the Washoe District. (Atlas.) [*U.S. Geol. Survey. Monograph III.*] *Washington*, 1882. 4to.
- Geology of the Quicksilver Deposits of the Pacific Slope. (Atlas.) [*U.S. Geol. Survey. Monograph XIII.*] *Washington*, 1888. 4to.
- Notes on the Stratigraphy of California. [*U.S. Geol. Survey. Bulletin No. 19.*] *Washington*, 1885. 8vo.
- BECKER, M. Handbuch der Ingenieur-Wissenschaft. 5 vols. Zweite Auflage [Atlas of plates.] *Stuttgart*, 1857-61. 8vo. and folio.
- BECKER, M. J. Why do Rail-Joints and Splice-bars break? *Tract.* 8vo. vol. 413. *Pennsylvania*, 1885. 8vo.
- BECKERT, T. Leitfaden zur Eisenhüttenkunde. *Berlin*, 1885. 8vo.
- BECKET, J. B. An Essay on Electricity. *Tract.* 8vo. vol. 380. *Lond.* 1773. 8vo.
- BECKETT, Sir E. [Lord GRIMTHORPE.] Speech before the Select Committee of the House of Commons on the London Water Supply. *Tract.* 8vo. vol. 523. *Lond.* 1880. 8vo.
- BECKMANN, J. A History of Inventions, Discoveries, and Origins. Translated from the German by W. Johnson; revised and enlarged by W. Francis and J. W. Griffith. 4th edition. 2 vols. *Lond.* 1846. 8vo.
- BECKTON. Report on the Sulphur Purification at Beckton and Bow Gasworks, by the Gas Referees: copies of further reports, *etc.* *Lond.* 1872. folio.
- BECKWITH, A. Paris Universal Exposition, 1867. Report on Asphalt and Bitumen, *etc.* *Washington*, 1868. 8vo.
- BECKWITH, L. F. Paris Universal Exposition, 1867. Report on béton-Coignet, its fabrication and uses. *Washington*, 1868. 8vo.
- BECQUEREL, A. C. Mémoire sur la conservation de cuivre et du fer dans la mer. *Tract.* 4to. vol. 63. *Paris*, 1864. 4to.
- Traité complet du magnétisme. *Paris*, 1846. 8vo.

- BECQUEREL, A. C. *Traité expérimental de l'électricité et du magnétisme et de leurs rapports avec les phénomènes naturels.* 7 vols. *Paris, 1834-40. 8vo.*
- BECQUEREL, A. E. *Des forces physico-chimiques et de leur intervention dans la production des phénomènes naturels. (Atlas of plates.)* *Paris, 1875. 8vo. and folio.*
- BECQUEREL, H. *Thèses présentées à la Faculté des Sciences de Paris pour obtenir le grade de docteur ès sciences physiques. 1re Thèse.—Recherches sur l'absorption de la lumière. 2e Thèse.—Propositions données par la Faculté.* *Paris, 1888. 4to.*
- BECQUEY, L. *Rapport au roi . . . sur la navigation intérieure de la France. Tract. 4to. vol. 14.* *Paris, 1820. 4to.*
- *Rapport au roi . . . sur la situation des canaux, au 31 Mars, 1823. Tract. 4to. vol. 8.* *Paris, 1823. 4to.*
- BEDBROOK, J. A. *Report on the working of the Sennett System of Smoke Prevention. Tract. 4to. vol. 119.* *Lond. 1891. 4to.*
- BEDDOES, T. *Observations on the nature of Demonstrative Evidence ; with an explanation of certain difficulties occurring in the elements of geometry : and reflections on language.* *Lond. 1793. 8vo.*
- BEDFORD. *Report on a Gunpowder Explosion at Bedford. By Maj. A. Ford.* *Lond. 1877. folio.*
- BEDFORD COLLIERY. *Special Report by J. Dickinson respecting the Explosion of Firedamp which took place on the 13th August, 1886, in the Crumbouke Mine at Wood End Pits.* *Lond. 1887. folio.*
- BEDFORD LEVEL. *Bedford Level petition presented to the House of Commons, 10 Feb. 1777. Tract. 8vo. vol. 159* *Lond. 1777. 8vo.*
- [A collection of Acts relating to the Drainage of the Great Level of the Fens, or Bedford Level.] *Lond. 1685-1762. folio.*
- *An historical account of the North Level of the Fens, referring to legal decisions connected with such ancient laws of sewers, contracts, and Acts of Parliament, as the claims are founded upon, with respect to the equal rights of drainage and preservation of the whole North Level, including Porsand and the uninclosed parts of that level. Tract. 4to. vol. 54.* *Lond. 1809. 4to.*
- *An Inquiry into facts, and observations thereon : humbly submitted to the candid examiner into the principles of a bill intended to be offered to Parliament, for the preservation of the great Level of the fens, and the navigation through the same, by a tax on the lands and a toll on the navigation. Tract. 8vo. vol. 159.* *Lond. 1777. 8vo.*
- *Observations relative to a bill intended to have been presented to Parliament this session for the better draining the Middle and South Bedford Levels, and the improvement of navigation. [By A. B.] Tract. 8vo. vol. 159.* *1778. 8vo.*

- BEDFORD LEVEL**—*continued*. Report of the joint committee of drainage and navigation relating to the Eau Brink cut. *Tract. 8vo. vol. 18.* *Lynn, 1823. 8vo.*
- Substance of Messrs. Walker and Burgess's Reports on the Middle Level Drainage. *Tract. folio. vol. 26.* [Cambridge,] 1848. folio.
- BEECHEY, F. S.** Electro-Telegraphy. 2nd edition. *Lond. 1881. 8vo.*
- BEECHEY, F. W., Capt.** Remarks upon the tidal phenomena of the river Severn, and a description of the strata passed through in boring into the bed of the river. (Atlas of plates.) *Lond. 1851. folio.*
- BEECROFT, G.** Comprehensive Price Tables, specially designed for use in the iron, steel, &c., trades. *Lond. 1877. 8vo.*
- BEEK, J.** Plan of the Tower Hamlets, comprehending the various alterations and improvements to the year 1843, from actual survey, *etc.* *Lond. [1850?] 4to.*
- BEEKMAN, A. A.** Nederland als Polderland. *Zutphen, 1884. 8vo.*
- BEER, C., and DWELSHAUVERS-DERY, V. A. E.** Théorie nouvelle des régulateurs. *Tract. 8vo. vol. 473.* *Liège, 1877. 8vo.*
- BEESELEY, G.** Specifications of improvements in the application of the motive power to the propellers of locomotive and marine engines. *Tract. 8vo. vol. 279.* *Lond. [1877.] 8vo.*
- BEEON, S. O.** Beeton's Ready Reckoner; a business and family arithmetic. *Lond. [1872.] 12mo.*
- BEEZ, W.** Der Antheil der k. Bayerischen Akademie der Wissenschaften an der Entwicklung der Electricitätslehre. Vortrag, *etc.* *Tract. 4to vol. 113.* *München, 1873. 4to.*
- BÉGAT, P.** Traité de géodésie à l'usage des marins, *etc.* *Paris, 1839. 8vo.*
- BEHR, F. B.** Lightning Express Railway service: 120 to 150 miles per hour. *Lond. 1893. 4to.*
- BEHR, F. B., and PETIT, G.** The Lartigue Elevated Single Rail Railway. *Lond. 1886. 4to.*
- BEIELSTEIN, W., Jun.** Die Installation der Warmwasseranlagen. Theoretisch-praktische Darstellung aller Systeme zur Erzeugung von Warmwasser für Leitungszwecke in Wohnhäusern, *etc.* *Weimar, 1889. 8vo.*
- BEILBY, G.** The Production of Ammonia from the Nitrogen of Minerals. *Tract. 8vo. vol. 425.* *Lond. 1884–85. 8vo.*
- BEKE, C. T.** An inquiry into M. Antoine d'Abbadie's journey to Kaffa, in the years 1843 and 1844, to discover the source of the Nile. (Appendix.) *Tract. 8vo. vol. 100.* *Lond. 1851. 8vo.*
- On the Alluvia of Babylonia and Chaldæa. *Tract. 8vo. vol. 100.* *Leipzig, 1839. 8vo.*
- A summary of recent Nilotic discovery. *Tract. 8vo. vol. 100.* *Lond. 1851. 8vo.*

BÉLANGER, J. B. *Essai sur la solution numérique de quelques problèmes relatifs au mouvement permanent des eaux courantes.*
Tract. 4to. vol. 47. Paris, 1828. 4to.

— *Note sur le cours d'Hydraulique. Paris, 1854-55. 4to.*

— *Résumé de leçons de géométrie analytique et de calcul infinitésimal . . . 2^e édition. Paris, 1859. 8vo.*

— *Résumé du cours de mécanique et machines. Paris, 1857. 4to.*

— *Théorie de la résistance et de la flexion plane des solides dont les dimensions transversales sont petites relativement à leur longueur.*
Tract. 8vo. vol. 245. Paris, 1858. 8vo.

BELCHER, Sir E. *A treatise on Nautical Surveying, etc.*
Lond. 1835. 8vo.

— *Narrative of a Voyage round the world, performed in Her Majesty's ship "Sulphur," during the years 1836-1842. 4 vols.*
Lond. 1848. 8vo.

— *Narrative of the voyage of H.M.S. "Samarang," during the years 1843-46; employed surveying the islands of the Eastern Archipelago, etc. 2 vols. Lond. 1848. 8vo.*

— *The Last of the Arctic voyages; being a narrative of the expedition in H.M.S. "Assistance," under the command of Captain Sir Edward Belcher, C.B., in search of Sir John Franklin, during the years 1852-53-54, etc. 2 vols. Lond. 1855. 8vo.*

BELCSAK, C. *Hardy's Vacuum-Bremse. Tract. 8vo. vol. 340.*
Wien, 1879. 8vo.

BELELUBSKY, N. *Aus der Praxis des Baues eiserner Brücken.*
Tract. 8vo. vol. 462. Riga, 1888. 8vo.

— *Iron superstructure of a 20 sagues (140 feet) Lattice Bridge. Type for five railways. [In Russian.] (Atlas of plates.)*
St. Petersburg, 1881. 8vo. and folio.

— *Laboratoire mécanique de l'Institut Impérial des Ingénieurs des voies de communication, 1875-86. [In Russian.]*
St. Petersburg, 1886. 8vo.

— *Die Oka-Brücke bei Alexin und die Ranowa-Brücke bei Rjaschk.*
St. Petersburg, 1882. folio.

— *Reconstruction of Bridge over Uvod River. Superstructure of the Parabolic system: span 350 feet. [In Russian.]*
St. Petersburg, 1884. 8vo.

— *The Uniform Testing of Materials. [In Russian.] Tract. 8vo.*
vol. 491. St. Petersburg, 1888. 8vo.

BELFAST. *History of Belfast Harbour; compiled by the Harbour Department of the Admiralty.*
Lond. 1852. folio.

— *Local Acts, 1845 to 1884: and two Acts, 1887.*
Belfast, 1885, 87. 8vo.

— *Main Drainage. Contract No. 1. Specification and drawings.*
J. C. Bretland, Engineer, 1888. Belfast, 1888. 8vo. and folio.

BELFAST—*continued*. New Lagan bridge. Specification and contract drawings. J. C. Bretland, Engineer, 1888.

Belfast, 1888. 8vo. and folio.

— Reclamation of Slob Lands. *Lond.* 1876. folio.

— Specification, Schedule of quantities, and Form of tender, for retort house extension, cannal store, &c., to be erected on their works, Ormean Road, Belfast. 2 parts. *Belfast*, 1890. folio.

— [*Queen's College.*] Calendar . . . 1885–6 (1887, etc.).
Belfast, 1885, etc. 8vo.

BELGIUM.—[*Cattle.*] Arrêté du roi, du 6 Juin, 1836, sur le mode de constater le poids du bétail. *Tract.* 8vo. vol. 53.

[*Bruzelles*, 1836.] 8vo.

— [*Finance.*] Budget des recettes et dépenses du Royaume de Belgique, pour l'exercice, 1842. *Bruzelles*, 1841. folio.
(Imperfect.)

— [*Geology.*] Commission de la carte géologique de la Belgique. Textes explicatifs. (Atlas of maps.)
Bruzelles, 1880–81. 8vo. and folio.

— [*Harbours.*] Rapport [to the Dutch Government] . . . over hun bezoek van eenige havens in Belgie en Frankrijk.
's Gravenhage, 1864. 4to.

— [*Hydraulic Works.*] Travaux hydrauliques.
Bruzelles, 1878. folio.

— [*Inland Navigation.*] Album des dépenses et des recettes faites par l'État sur le réseau des voies navigables, de 1830 à 1880.
[*Bruzelles*, 1881.] folio.

— La navigation de la Belgique vers Paris.
Bruzelles, 1840. folio.

— Profils en long des voies navigables de la Belgique. (Atlas.)
Bruzelles, 1880. folio.

— Voies navigables de la Belgique. Guide du batelier. *Tract.* 8vo.
vol. . [*Bruzelles*,] 1880. 8vo.

— Édition 1889. Publié par A. Dufourney. (Annexes I. et II.). 3 vols. *Bruzelles*, 1889–93. 8vo.

— Voies navigables de la Belgique. Recueil de renseignements. 2 vols. *Bruzelles*, 1880. folio.

— Voies navigables de la Belgique. Statistique du mouvement des transports. (Atlas.) *Bruzelles*, 1879. 8vo. and folio.

— [*Iron.*] Commission pour l'étude et la recherche des moyens d'étendre l'emploi du fer. Rapports et documents. (Atlas of plates.) *Bruzelles*, 1880. 8vo. and folio.

— [*Lamps.*] Lampes de sûreté. Instruction pratique sur l'emploi de la lampe de M. l'ingenieur Mueseler, etc. *Tract.* 8vo. vol. 78.
Bruzelles, 1843. 8vo.

— [*Mines.*] Commission pour la rédaction d'un programme des études à faire sur les explosions de gaz grisou. Rapport, procès-verbaux des séances, et documents. *Bruzelles*, 1880. 8vo.

- BELGIUM.—[*Mines*].—*continued*. Compte rendu des opérations pendant l'année 1881. (Extrait.) *Tract. folio. vol. 36.*
Bruzelles, 1882. folio.
- État des industries minières et métallurgiques et des carrières. Année 1861 à 1875. *Bruzelles, [1876.] 4to.*
- Mines exploitées avec ou sans concession. [1835.] *folio.*
- Organisation du service et du corps des ingénieurs des mines. *Tract. 8vo. vol. 115.* *Bruzelles, 1856. 8vo.*
- Rapport présenté à la Chambre des Représentants. *Bruzelles, 1839. folio.*
- Règlement général de police. *Tract. 8vo. vol. 466.* *Bruzelles, 1884. 8vo.*
- Belgian Mine Regulations. *Tract. 8vo. vol. 406.* [Brussels, 1884.] *4to.*
- Statistique des mines, minières, carrières, usines métallurgiques et appareils à vapeur de Belgique pour l'année 1881. *Tract. 8vo. vol. 466.* *Bruzelles, 1883. 8vo.*
- [*Public Health.*] Police des établissements dangereux, insalubres ou incommodes. *Tract. 8vo. vol. 239.* *Bruzelles, 1873. 8vo.*
- [*Public Works.*] Annales des travaux publics de Belgique. *Bruzelles, 1843, etc. 8vo.*
- [*Railways.*] Chemin de fer de l'Entre-Sambre-et-Meuse. Études et convention provisoire, etc. *Bruzelles, 1844. folio.*
- Chemins de fer : exploitation. Arrêtés du roi et règlement général du 1^{er} septembre, 1838. *Tract. 8vo. vol. 81.* *Bruzelles, 1838. 8vo.*
- Correspondence respecting Tariffs for Goods and Passengers on Belgian State Railways, and Returns for 1888 showing the working of Belgian and of Austrian and Hungarian State Railways. (House of Commons Return.) *Lond. 1891. folio.*
- Ligne du Hainaut. Enquête. *Bruzelles, 1837. folio.*
- Mémorial des chemins de fer de l'État. *Bruzelles, 1879–81. folio.*
- Rapport présenté aux Chambres législatives, 1841, (1842, etc.). *Bruzelles, 1841, etc. folio.*
- Rapports de la commission des tarifs, instituée par arrêté Royal du 14 juin, 1841. *Bruzelles, 1841. folio.*
- [*Roads.*] Direction des routes : cartes indiquant le développement progressif des routes de 1830 à 1880. [Administration des Ponts et Chaussées.] [Brussels, 1881.] *folio.*
- Routes. Emploi du crédit des six millions. *Bruzelles, 1838. folio.*
- [*Savings Banks.*] Caisses de prévoyance en faveur des ouvriers mineurs. Examen des comptes pour l'année 1879, (1880–1882). *Tract. 8vo. vols. 343, 360, 463.* *Bruzelles, 1881–84. 8vo.*

- BELGIUM**—*continued*.—[*Steam Engines*.] Arrêtés du Roi et règlement général du 1^{er} septembre, 1838. (Machines à vapeur.) *Tract.* 8vo. vol. 81. *Bruxelles*, 1838. 8vo.
- Machines à vapeur. Arrêtés et instructions. *Tract.* 8vo. vol. 314. *Bruxelles*, 1839. 8vo.
- Règlement de police et instructions. Machines à vapeur. *Tract.* 8vo. vol. 463. *Bruxelles*, 1884. 8vo.
- [Survey.] Compte rendu des opérations de la Commission instituée par M. le Ministre de la guerre pour étalonner les règles qui ont été employées . . . à la mesure des bases géodésiques belges, etc. *Bruxelles*, 1855. 4to.
- Triangulation du Royaume de Belgique, etc. *Bruxelles*, 1867. 4to.
- See also BRUSSELS.—*Institut cartographique militaire*.
- [Trade.] Statistique de la Belgique. Table générale du commerce avec les pays étrangers, 1874–79. 2 vols. *Bruxelles*, 1875–80. folio.
- BELGRAND, E.** L'âge des tourbes dans la vallée de la Seine. *Tract.* 8vo. vol. 253. 1869. 8vo.
- Atlas des égouts de la ville de Paris. *Paris*, 1875. folio.
- Note sur le régime des pluies et des cours d'eau dans le bassin de la Seine à l'époque quaternaire. *Tract.* 4to. vol. 76. *Versailles*, 1869. 4to.
- Plan des conduites d'eaux de la ville de Paris. *Paris*, 1875. folio.
- Recherches statistiques sur les sources du bassin de la Seine qu'il est possible de conduire à Paris, etc. *Tract.* 4to. vol. 66. *Paris*, 1854. 4to.
- Les Travaux souterrains de Paris, etc. (3 atlases of plates.) 8 vols. *Paris*, 1873–87. 8vo. and folio.
- BELGRAND, E., and LEMOINE, G.** Notice sur les crues des principales rivières de France, en Mars, 1876. *Paris*, 1877. 4to.
- Observations sur les cours d'eau et la pluie centralisées, par le Service hydrométrique du bassin de la Seine. 1871, etc. See FRANCE.—[Hydrology.]
- BÉLIDOR, B. F. DE.** Architecture hydraulique, etc. 4 vols. *Paris*, 1737–53. 4to.
- — Nouvelle édition, avec des notes et additions par M. Navier. 1 Partie. Tom. 1. *Paris*, 1819. 4to.
- La science des ingénieurs dans la conduite des travaux de fortification et d'architecture civile. 2 vols. *Paris*, 1739. 4to.
- — [Another edition.] 2 vols. *Paris*, 1789. 4to.
- Œuvres diverses concernant l'artillerie et la génie. *Amsterdam and Leipzig*, 1764. 8vo.

- BELL, A. Mathematical Tables; consisting of logarithmic and other tables required in the various branches of practical mathematics. *Edinburgh*, 1844. 12mo.
- A treatise of Practical Mathematics. 2 vols. *Edinburgh*, 1847. 12mo.
- BELL, A. N. Rival Systems of Heating. *Tract. 8vo. vol. 381.* 1884. 8vo.
- BELL, Sir C. The Hand, its Mechanism, etc. 1837. See BRIDGE-WATER TREATISES, No. 4.
- BELL, C. N. Drift-material of New Zealand Beaches, and their effect on Harbour-works and Rivers. *Tract. 8vo. vol. 528.* 1892. 8vo.
- Presidential address to the Australasian Association for the advancement of Science . . . Section J., Engineering and Architecture. *Tract. 8vo. vol. 522.* [*Hobart*, 1892.] 8vo.
- [The various reports by C. N. Bell on Engineering and other Public Works in Tasmania, are catalogued under the names of the places and works to which they refer.]
- BELL, D. Lecture on various matters connected with the improvements of the river Clyde and the harbour of Glasgow. *Tract. 8vo. vol. 286.* *Glasgow*, 1837. 8vo.
- BELL, E., Major, and TYRRELL, F. Public Works and the public service in India. *Lond.* 1871. 8vo.
- BELL, H. P. Report on . . . Survey for a railway to connect the Canadian Pacific Railway with Barkerville, etc. 1887. See CANADIAN PACIFIC RAILWAY.
- BELL, Sir I. L. Chemical Phenomena of Iron Smelting, etc. *Lond.* 1872. 8vo.
- The Chemistry of the Blast-Furnace. *Tract. 8vo. vol. 174.* *Lond.* 1869. 8vo.
- The Iron and Steel Trade. *Tract. 8vo. vol. 437.* [1886.] 8vo.
- Notes of a visit to Coal and Iron Mines and Ironworks in the United States, etc. *Newcastle-upon-Tyne*, 1875. 8vo.
- Notes on the manufacture of Iron in the Austrian Empire. *Tract. 8vo. vol. 273.* *Gateshead*, 1865. 8vo.
- Notes on the progress of the Iron Trade of Cleveland, etc. *Middlesborough*, 1878. 8vo.
- On a method of recovering Sulphur and Oxide of Manganese as practised at Dieuze, near Nancy, etc. *Newcastle-upon-Tyne*, 1867. 8vo.
- On Mr. Ferrie's covered Self-cooking Furnace. [1867 ?] 8vo
- On Price's Patent Retort Furnace, etc. *Newcastle-upon-Tyne*, 1875. 8vo.

- BELL, Sir I. L.—*continued*. Discussion on . . . Price's Patent Retort Furnace. *Newcastle-upon-Tyne*, 1876. 8vo.
- On some supposed changes Basaltic Veins have suffered during their passage through, and contact with stratified rocks, *etc.*
(From Proc. Roy. Soc.) [*Lond.* 1875.] 8vo.
- On the conditions which favour, and those which limit the economy of fuel in the Blast Furnace for smelting Iron, *etc.*
Lond. 1872. 8vo.
- On the development and appropriation of Heat in Iron Blast Furnaces of different dimensions, *etc.*
Newcastle-upon-Tyne, 1869. 8vo.
- On the preliminary treatment of the materials used in the manufacture of Pig Iron in the Cleveland district.
Birmingham, [1871.] 8vo.
- On the separation of Carbon, Silicon, Sulphur and Phosphorus in the refining and puddling furnace in the Bessemer Process : with some remarks on the manufacture and durability of railway bars. Two parts. *Newcastle-upon-Tyne*, 1877. 8vo.
- On the Sum of Heat utilised in smelting Cleveland Ironstone, *etc.*
Newcastle-upon-Tyne, 1875. 8vo.
- On the use of Caustic Lime in the Blast Furnace, *etc.*
Newcastle-upon-Tyne, 1875. 8vo.
- Opening Address of the President of the Iron and Steel Institute, at the meeting held at Liège, *etc.*
Newcastle-upon-Tyne, 1873. 8vo.
- A paper on our Foreign Competitors in the Iron Trade, *etc.*
Newcastle-upon-Tyne, [1868.] 8vo.
- The present state of the Manufacture of Iron in Great Britain, *etc.*
Newcastle-upon-Tyne, 1867. 8vo.
- Presidential Address to the Members of the Iron and Steel Institute . . . at the annual meeting held in . . . London, April 29, 1873. *Newcastle-upon-Tyne*, 1873. 8vo.
- President's Address [to the Iron and Steel Institute] delivered in London, 6th May, 1874, *etc.* *Newcastle-upon-Tyne*, 1874. 8vo.
- Principles of the manufacture of Iron and Steel, with some notes on the economic conditions of their production.
Lond. 1884. 8vo.
- Report on the Iron Manufacture of the United States of America, and a comparison of it with that of Great Britain.
Lond. 1877. 8vo.
- *Revue étrangère*. The Iron Trade Review. Meeting trimestriel du nord de l'Angleterre, tenu à Newcastle le 29 Septembre, 1868. [Résumé of a paper by Sir I. Lowthian Bell, by G. Rocour.] *Tract.* 8vo. vol. 174. *Liège*, 1868. 8vo.
- The Smelting of Iron Ores chemically considered. *Tract.* 8vo. vol. 495. *Lond.* 1890. 8vo.

- BELL, Sir I. L.—*continued*. The Waste of Heat . . . in smelting Ores of Iron. *Tract. 8vo. vol. 534.* *Lond. 1894. 8vo.*
- BELL, J. Pantheon ; or historical dictionary of the gods, demi-gods, heroes, and fabulous persons of antiquity . . . Compiled from the best authorities. 2 vols. in 1. *Lond. 1790. 4to.*
- BELL, J., and SON. Bell's Asbestos. *Tract. 8vo. vol. 427.* *Lond. 1886. 8vo.*
- BELL, J. F. Water Gas : a paper, etc. *Tract. 8vo. vol. 479.* *Lond. 1889. 8vo.*
- BELL, L. The Electric Railway, etc. 1892. See CROSBY, O. T., and BELL, L.
- BELL, R. The Forests of Canada. *Tract. 8vo. vol. 420.* *Montreal, 1886. 8vo.*
- BELL, R. B. On patent Slip Docks. *Tract. 8vo. vol. 154.* *Glasgow, 1869. 8vo.*
(From the Minutes of Proceedings Institution Engineers in Scotland.)
- BELL, R. B., and MILLER, D. Belfast Harbour. Report upon the Harbour and Dock accommodation. *Tract. 8vo. vol. 305.* *Glasgow, 1862. 8vo.*
- BELL, R. B., NEWTON, —, Major-Gen., and FLEMING, S. Report on a Scheme of Improvements for the Harbour of Montreal. 1877. 8vo.
- BELL, T. History of the Cincinnati Waterworks. *Tract. 8vo. vol. 341.* *Cincinnati, 1881. 8vo.*
- BELL, W. Report on the question of the Strength of the Cylinders of the bridges on the Oude and Rohilkund Railway. *Tract. folio. vol. 15.* *Lond. 1872. folio.*
- BELLAMY, C. J. Tables for the use of Engineers and Architects in taking out quantities of masonry, etc. *Lond. 1873. 8vo.*
- BELLASIS, E. S. "Inundation Canals" and "Gauges in shifting rivers, etc." *Roorkee, 1886. folio.*
- A paper on the Roorkee Hydraulic Experiments. *[Lond.] 1886. 8vo.*
- BELLEFONDS, L. DE. Mémoires sur les principaux travaux d'utilité publique exécutés en Égypte. (Atlas of plates.) *Paris, 1872–73. 8vo. and folio.*
- BELLEVILLE, G. Balisage et éclairage de l'estuaire de la Seine. *Tract. 8vo. vol. 505.* *Rouen, 1893. 8vo.*
- BELLIN, S. Le petit atlas maritime ; recueil de cartes et plans des quatre parties du monde, etc. 1764. 4to.
- BELLINGRATH, E. Studien über Bau und Betriebsweise eines Deutschen Kanalnetzes. Mit einem Atlas von 11 Tafeln. *Berlin, 1879. 8vo.*
- BELLINGRATH, E., and DIECKHOFF, —. Traction on the Elbe and Oder. [5th Int. Congr. Int. Nav.] *[Paris, 1892.] 8vo.*
- BELLOC, A. La télégraphie historique depuis les temps les plus reculés jusqu'à nos jours. *Paris, 1888. 8vo.*

- BELLORIUS, P. *Fragmenta vestigii veteris Romæ.*
Roma, 1673. folio.
- BELLY, F. *Percement de l'isthme de Panama par le canal de Nicaragua.*
Paris, 1858. 8vo.
- BELOE, C. H. *Handbook of the Liverpool Waterworks. Tract. 8vo.*
vol. 152. Lond. 1869. 8vo.
- On the Construction of catch-water Reservoirs in mountain districts.
Lond. 1872. 8vo.
- BELPAIRE, A. *Traité des dépenses d'exploitation aux chemins de fer, etc.*
Anvers, 1847. 8vo.
- BELPAIRE, T. *Étude sur la marche des crues. Tract. 8vo. vol. 348.*
Gand, 1881. 8vo.
- BELSON, J. *Memorial relating to the Mooring of Ships in the port of London. Tract. 8vo. vol. 213.*
Lond. 1786. 8vo.
- BELUCHISTAN. *Report connected with the Zhara Karez Irrigation Scheme. [Selections from the Records of the Government of India. P.W.D. Serial. No. 11.] Calcutta, 1887. folio.*
- BELVILLE, J. H. *A Manual of the Barometer. 2nd edition. Tract. 8vo. vol. 229.*
Lond. 1849. 8vo.
- BÉNAZÉ, O. D. DE. *Recherche de la profondeur à laquelle se transmet l'agitation produite à la surface de la mer. Tract. 8vo. vol. 331.*
Paris, [1880?] 8vo.
- BÉNAZÉ, O. D. DE, and RISBEC, P. *Mémoire sur le mouvement complet du navire oscillant sur eau calme, etc. (Atlas of plates.)*
Brest, 1873. 4to. and folio.
- BENAZZO, E. *Circa la estensione del servizio economico sulle linee secondarie della rete ferroviaria dell'alta Italia. Tract. 4to. vol. 85.*
Milano, 1880. 4to.
- *Il canale sussidiario Cavour. Torino, [1875.] 8vo.*
- BENDER, C. *Practical treatise on the properties of continuous Bridges. New York, 1876. 12mo.*
- *Proportions of Pins used in Bridges. New York, 1873. 8vo.*
(Van Nostrand's Science Series.)
- BENDER, C. B. *Principles of Economy in the design of metallic Bridges. New York, 1885. 8vo.*
- *Suspension Bridges of any desired degree of stiffness. Tract. folio. vol. 29.*
Lond. 1881. folio.
- BENEDICT, E. *Bhatinda Bikanir Railway. Tract. folio. vol. 48.*
Patiala, 1890. folio.
- *Cast-iron Pipes. Tract. 8vo. vol. 315.*
Lond. 1878. 8vo.
- BENEDIKT, R. *The Chemistry of the Coal-tar Colours . . . Translated from the German, and edited, with additions, by E. Knecht. Lond, 1886. 8vo.*
- BENEST, H., *Capt. Coast Telegraph Communication [with light-houses, lightships, etc.]. Tract. 4to. vol. 115. Lond. [1892.] 4to.*

- BENET, S. W., *Lieut.-Col., U.S.A.* Electro-ballistic Machines and the Schultz Chronoscope. *New York*, 1866. 4to.
- BENGAL. *See* INDIA.—BENGAL.
- BENHAM, R. F. The Supply of Water to our homes; showing the impracticability of the regulations made in pursuance of the Metropolis Water Act, 1871. *Tract. 8vo. vol. 341.*
Lond. 1882. 8vo.
- BENJAMIN, P. The Age of Electricity, from amber-soul to telephone. *New York*, 1886. 8vo.
- Appleton's Cyclopædia of Applied Mechanics. 2 vols.
New York, 1880–81. 8vo.
- Modern Mechanism: exhibiting the latest progress in machines, motors, and the transmission of power. *London*, 1892. 8vo.
- Wrinkles and Recipes, compiled from the Scientific American.
New York, [1870 ?] 8vo.
- BEN LOMOND, *Tasmania*. Report on the Ben Lomond and St. Paul's River Tin Deposits. By G. Thureau.
[*Hobart*,] 1881. folio.
- BENN, W. L. Clongill District, county of Meath. Report . . . on the Drainage, etc. 1847. *See* PACKER, G., and BENN, W. L.
- BENNETT, A. R. Electric Traction, etc. *Tract. 8vo. vol. 479.*
Edinburgh, 1889. 8vo.
- On the Telephoning of Great Cities, and an Electrical Parcel Exchange System. Revised edition. *Tract. 8vo. vol. 515.*
Lond. 1892. 8vo.
- BENNETT, F. J. Our Sewage System. *Tract. 8vo. vol. 407.*
[1886.] 8vo.
- BENNETT, J. Result of Experiments on the Stiffness of a few of the various Woods from the Andaman Forests, etc. *Tract. folio. vol. 15.*
Port Blair, 1872. folio.
- Suggestions for the Reform of Patent Laws. *Tract. 8vo. vol. 116.*
Lond. 1855. 8vo.
- BENNETT, W. The Esquimault Graving Dock Works, British Columbia. *Tract. 8vo. vol. 488.*
Montreal, 1889. 8vo.
- BENNETT, W. B. G. Description of the Sanitary Works and Sewage Disposal of Southampton. *Tract. 8vo. vol. 511.*
Southampton, 1891. 8vo.
- The new Sanitary Works of Southampton. Utilization of town refuse, etc. *Tract. 8vo. vol. 482.*
Southampton, 1889. 8vo.
- BENNETT, W. H., and VALON, W. A. Report on Electric Lighting on the Jablochkoff system at Westgate-on-Sea. *Tract. 8vo. vol. 308.*
Lond., 1879. 8vo.
- BENNION, J. A. Report of the Director of Technical Instruction, County Palatine of Lancaster for 1892. *See* LANCASTER, County of.

- BENNOCH, F. The Bridges of London. Are more bridges needed ?
Tract. 8vo. vol. 146. Lond. 1853. 8vo.
- A Paper on Metropolitan Improvements and Thames Embankment, etc. *Tract. 8vo. vol. 143. Lond. 1857. 8vo.*
- BENOIT, P. M. N. Guide du meunier et du constructeur de moulins.
2 vols. *Paris, 1863. 8vo.*
- BENRATH, H. E. Die Glasfabrikation. *Braunschweig, 1875. 8vo.*
- BEN-SAUDE, A. Anomalias opticas de crystaes tesseraes. *Tract. 8vo. vol. 433. Lisboa, 1884. 8vo.*
- Da incongruencia entre a observação e a theoria em alguns crystaes cubicos. *Tract. 8vo. vol. 433. Lisboa, 1884. 8vo.*
- Note sur la nature minérologique de quelques instruments de pierre trouvés en Portugal. *Tract. 8vo. vol. 433. Lisbonne, 1884. 8vo.*
- Note sur une météorite ferrique, trouvée à S. Juliao de Moreira, etc. *Tract. 8vo. vol. 488. Lisbonne, 1888. 8vo.*
- Ueber den Analcim. Inaugural-Dissertation, etc. *Tract. 8vo. vol. 433. Stuttgart, 1881. 8vo.*
- Ueber den Perowskit. *Tract. 4to. vol. 105. Göttingen, 1882. 8vo.*
- BEN-SAUDE, J. Mittheilungen über den Hafen von Cetta. *Tract. folio. vol. 39. Hannover, 1885. folio.*
- On the projected Lisbon Harbour Works. *Tract. 8vo. vol. 451. 1887. 8vo.*
- BENSON, Sir J. Cork Harbour. Report on the River Lee. The dredging plant at work, etc. *Tract. 8vo. vol. 251. Cork, 1872. 8vo.*
- BENT, S. An Address . . . upon the thermal paths to the Pole, the Currents of the Ocean, and the influence of the latter upon the climates of the world. *St. Louis, 1872. 8vo.*
- BENTHAM, Sir S. Naval Papers and Documents referred to in "Essays on the Management of public concerns." *Lond. 1827. 8vo.*
- Answers to the Comptroller's objections, &c., &c. *Lond. 1800. 8vo.*
- Breakwaters. *[Lond. 1844.] 8vo.*
- Correspondence on the subject of various improvements in His Majesty's Dock-yards, etc. *Lond. 1795-99. 8vo.*
- Desiderata in a Naval Arsenal, etc. *Lond. 1814. 8vo.*
- Financial Reform scrutinized in a letter to Sir Henry Parnell, Bart, M.P. *Lond. 1830. 8vo.*
- Letters and Papers relative to the mode of arming Vessels of War. *Lond. 1828. 8vo.*
- Letters on certain experimental Vessels, on Contracts for providing Naval Stores, etc. *Ohatham and Lond. 1779-1813. 8vo.*

- BENTHAM, Sir S.—*continued*. Letter to Lord Viscount Melville, respecting the real causes of the Defeat of the English Flotilla on the lake Erie, *etc.* *Lond.* 1814. 8vo.
- Representations on the cause of decay in Ships of War, together with proposals for effecting the due seasoning of timber, *etc.* *Lond.* 1814. 8vo.
- Statement of services rendered in the Civil Department of the Navy. *Lond.* 1827. 8vo.
- Supplement to Naval Papers, No. 3. *Lond.* 1795–1801.
- BENTLY, C. S. A new Theory of the Tides, *etc.* *Tract. folio.* vol. 26. 1879. folio.
- BENTON, J. G., *Brevet-Col.* A Course of instruction in Ordnance and Gunnery, prepared for the use of the Cadets of the United States' Military Academy. 3rd edition. *New York*, 1867. 8vo.
- BÉOTHY, A. Machine locomotive à grande vitesse de 750 chevaux-vapeur. *Tract. 8vo. vol.* 479. *Paris*, 1889. 8vo.
- BÉRARD, A. Épuration de la houille. *Tract. 8vo. vol.* 117. (From the *Annales des Mines.*) *Paris*, 1856. 8vo.
- Procédé Bérard pour la transformation directe de la fonte en acier. Notice explicative. *Tract. 8vo. vol.* 196. *Bruzelles*, 1870. 8vo.
- BÉRARD, E. Le Mont Blanc et le Simplon considérés comme voies internationales. *Tract. 8vo. vol.* 318. *Turin*, 1880. 8vo.
- BÉRARD, E. P. Rapport sur un four destiné à la fabrication du gaz de l'éclairage. *Tract. 4to. vol.* 118. *Paris*, 1889. 4to.
- BERESFORD, Lord C. Protection of the Mercantile Marine during War: address to the London Chamber of Commerce. *Tract. 8vo. vol.* 528. [*Lond.* 1893.] 8vo.
- BERETTA, C., and DESNOS, E. Les nouvelles chaudières à vapeur, notamment celles qui ont figuré à l'Exposition Universelle de 1878. *Paris*, 1881. 4to.
- BERG, D. Das neue Wasserwerk der Königlichen Residenzstadt Hannover, *etc.* *Hannover*, 1880. folio.
- BERG, D. C. La vida y costumbres de los Termitos. *Tract. 8vo. vol.* 474. *Buenos Aires*, 1880. 8vo.
- BERG, L. DE C. Safe Building: a treatise giving . . . the practical and theoretical rules and formulæ used in the construction of buildings. 2 vols. *Boston*, 1890–92. 8vo.
- BERGEN, W. C. "Bergen's Marine Engineer." *North Shields*, 1880. 8vo.
- BERGER, C. H. The Metric System. *Tract. 8vo. vol.* 202. [1870?] 8vo.
- BERGER, F., and OTHERS. Debatte über die Wienfluss-Regulirung und Stadtbahn-Frage. *Tract. 8vo. vol.* 430. *Wien*, 1883. 8vo.

BERGER, R. Rede gehalten bei der Enthüllung der Prechtl-Büste, etc. 1892. See KOLBE, J., and BERGER, R.

BERGERON, C. Commission d'enquête sur les chemins de fer. Rapport de . . . M. Bergeron (Mission en Angleterre). 1862. See LAN, C., MOUSSETTE, —, BERGERON, C., and DUBOCC, C.

— Improvements in the Permanent Way of Railways. *Tract.* 8vo. vol. 340. Lond. 1882. 8vo.

— Les chemins de fer Suisses et le railway-clearing-house de Londres. *Tract.* 8vo. vol. 179. Lausanne, 1863. 8vo.

— Réforme de la voie permanente des chemins de fer. *Tract.* 8vo. vol. 470. Paris, 1883. 8vo.

— Réformes dans la pose et l'entretien de la voie des chemins de fer. *Tract.* 4to. vol. 82. (Lithographed.) Lond. 1880. 4to.

BERGERON, Dr. G. Assainissement de la Seine. *Tract.* folio. vol. 21. Paris, 1876. folio

BERGERON, L. E. Manuel du tourneur. 3 vols. Paris, 1792–96. 4to.

— — [2nd edition.] 3 vols. Paris, 1816. 4to.

BERGHAUS, Dr. A. Max Maria Freiherr von Weber, ein Lebensbild. *Tract.* 8vo. vol. 333. Berlin, 1881. 8vo.

BERGHAUS, H. Chart of the World on Mercator's Projection. 11th edition. Gotha, 1886. folio.

BERGIN, T. F. Observations on the Report of Lieut.-Col. Sir F. Smith, R.E., and Professor Barlow, on the Atmospheric Railway. *Tract.* 8vo. vol. 81. Dublin, 1843. 8vo.

BERGMAN, T. Sciagraphia regni mineralis, secundum principia proxima digesti. Londini, 1783. 8vo.

BERGSMA, C. A. Handleiding tot de vervaardiging der Dornsche leemdaken. *Tract.* 8vo. vol. 198. Utrecht, 1840. 8vo.

BERGUE, C. de. Patent Permanent Way. *Tract.* 4to. vol. 46. [1880?] 4to.

BÉRIGNY, C. Navigation maritime du Havre à Paris, etc. *Tract.* 8vo. vol. 16. Paris, 1826. 8vo.

BERINGER, A. Kritische Vergleichung der elektrischen Kraftübertragung mit den gebräuchlichsten mechanischen Uebertragungssystemen. *Tract.* 8vo. vol. 352. Berlin, 1883. 8vo.

BERKHOUT, J. J. P. T. van. Beschrijving van de booten der Stoomvaartmaatschappij "Zeeland," etc. 1891. See HURT, A., and BERKHOUT, J. J. P. T. van.

BERKLEY, Sir G. Examination of the construction and working of Fairlie's Engines. *Tract.* folio. vol. 22. Westminster, 1870. folio.

BERKLEY, Sir G.—*continued*. The peculiar features of the Atmospheric Railway System. *Tract. 8vo. vol. 500. Lond. 1845. 8vo.*
(From Min. Proc. Inst. C.E.)

- Preliminary experiments on the mechanical and other properties of Steel . . . by a Committee of Civil Engineers. G. Berkley, Secretary. *Lond. 1868. folio.*
- Experiments on the mechanical and other properties of Steel . . . by a Committee of Civil Engineers. G. Berkley, Secretary. *Lond. 1870. folio.*
- Report on the causes of an accident on the Bhoze Ghât incline of the Great Indian Peninsula Railway. *Tract. folio. vol. 12. Lond. 1869. folio.*

BERKLEY, J. J. An Address delivered at the annual meeting of the Bombay Mechanics' Institution. *Tract. 8vo. vol. 117. Bombay, 1857. 8vo.*

- Paper on the Bhoze Ghaut railway incline, *etc. Tract. 8vo. vol. 117. Bombay, 1858. 8vo.*
- [Another edition.] With an appendix by A. A. West. *Tract. 8vo. vol. 144. Bombay, 1863. 8vo.*
- Paper on the Thul Ghaut railway incline, *etc. Tract. 8vo. vol. 127. Bombay, 1861. 8vo.*

BERLEPSCH, H. A. Die Gotthard-Bahn, Beschreibendes und Geschichtliches. *Tract. 4to. vol. 99. Gotha, 1881. 4to.*

BERLIER, J. B. The Pneumatic Transmission of messages and parcels between Paris and London. *Tract. folio. vol. 37. Lond. 1885. folio.*

BERLIN.—[*Drainage.*] Reinigung und Entwässerung Berlins. 13 Hefte. (Atlas.) *Berlin, 1879. 8vo. and folio.*

— [Public Health.] Die Anstalten der Stadt Berlin für die öffentliche Gesundheitspflege und für den naturwissenschaftlichen Unterricht. *Berlin, 1886. 8vo.*

— [Railways.] Die Bauwerke der Berliner Stadt-Eisenbahn. (Official.) *Berlin, 1886. folio.*

— [Sewerage.] Bericht der Deputation für die Verwaltung der Kanalisationswerke, 1882–83, (1883–84, *etc.*). [Verwaltungs-Bericht des Magistrats zu Berlin.] *Berlin, 1883, *etc.* 4to.*
(1885–86 is in 8vo.)

— [Another edition of 1884–85.] *Berlin, 1885. 8vo.*

— General-Bericht über die Arbeiten der Städtischen gemischten Deputation für die Untersuchung der auf die Kanalisation und Abfuhr bezüglichen Fragen. [Signed R. Virchow.] *Tract. 8vo. vol. 438. Berlin, 1872. 8vo.*

— [Waterworks.] See HONG KONG. Report on proposed Water Ordinance . . . [containing Tariff and regulations of the Berlin Waterworks of 1878.] 1883.

— Architektenverein zu Berlin. [Catalogue of the Library.] *Berlin, 1887. 8vo.*

- BERLIN—*continued*.—*Königliche Bau-Akademie*. Verzeichniss der Unterrichts-Gegenstände, 1867–68, 1868, 1870, 1870–71.
Berlin, 1867, *etc.* 8vo.
- *Königliche Gewerbe-Akademie*. Regulativ für die Organisation der Akademie. *Tract.* 8vo. vol. 472. [*Berlin*, 1866?] 8vo.
- Verzeichniss der Unterrichts-Gegenstände für das Sommer-Semester 1868. *Berlin*, 1868. 8vo.
- *Königliches Gewerbe-Institut*. Regulativ für die Organisation des . . . Instituts. *Tract.* 8vo. vol. 476. *Berlin*, 1860. 8vo.
- *Königliches Gewerbehaus*. Reglement über die Benutzung der Bibliothek. *Tract.* 8vo. vol. 472. *Berlin*, 1857. 8vo.
- *Königliche Technische Hochschule*. Festschrift der . . . Hochschule . . . zur Feier der Einweihung ihres neuen Gebäudes am 2 Nov., 1884. *Berlin*, 1884. 4to.
- Katalog der Bibliothek. *Berlin*, 1885. 8vo.
- Programm für das Studienjahr 1881, (1885–86, *etc.*).
Berlin, 1881, *etc.* 8vo.
- Vorschriften über die Diplom-Prüfung für die Abtheilungen II., III., u. IV. *Tract.* 8vo. vol. 454. *Berlin*, 1888. 8vo.
- *Königliche Technische Versuchsanstalten*. Mittheilungen, 1883, *etc.*
Berlin, 1883, *etc.* 4to.
- *Verein für Eisenbahnkunde*. Festschrift zur Feier des fünfzig-jährigen Bestehens des Vereins am 11 Oktober, 1892.
[Berlin], 1892. 8vo.
- Fragebogen, betreffend den Eisenbahn-Oberbau. *Tract.* folio. vol. 47. *Berlin*, 1891. folio.
- Verhandlungen, 1878, (1879, *etc.*). *Berlin*, 1878, *etc.* 8vo.
- BERLY, J. A. Universal Electrical Directory and Advertiser, *etc.*
Lond. 1889, *etc.* 8vo.
- BERMONDSEY. Report on the Water-Supply of Bermondsey.
Lond. 1872. folio.
- BERMOUTH, Dr. C. Technologische Hand-Encyclopädie.
Stuttgart, 1850. 8vo.
- BERMUDA, *Floating Dock*. Narrative of the Voyage of the Floating Dock "Bermuda," from England to Bermuda; written in the form of a diary. By One of Those on Board.
Lond. [1869.] 8vo.
- BERNAN, W. On the history and art of Warming and Ventilating rooms and buildings, *etc.* 2 vols. *Lond.* 1845. 8vo.
- BERNARD, C. E. An essay on Arithmetical Perspective.
Lond. 1839. 8vo.
- BERNAYS, E. A. Chatham Dockyard extension works. Lectures, *etc.*
Old Brompton, 1872–79. folio.
- Portland Cement and some of its uses: a lecture.
Chatham, 1879. folio.

- BERNAYS, J. Inaugural Address delivered as President of the Society of Engineers, *etc.* *Tract.* 8vo. vol. 476. *Lond.* 1880. 8vo.
- BERNOULLI, C. Anfangs-Gründe der Dampfmaschinenlehre für Techniker und Freunde der Mechanik. *Basel*, 1824. 8vo.
- BERNOULLI, D. Hydrodynamica, sive de viribus et motibus fluidorum commentarii, *etc.* *Argentorati*, 1738. 4to.
- BERNOULLI, JAMES. Opera. 2 vols. *Genevæ*, 1744. 4to.
- BERNOULLI, JOHN. Opera omnia, tam antea sparsim edita, quam hactenus inedita, *etc.* 4 vols. *Lausannæ et Genevæ*, 1742. 4to.
- BERRA, D. Dei prati del basso Milanese. *Milano*, 1822. 8vo.
- BERTHAUD, M. Canal et Port St. Louis et jonction du Rhône à la Méditerranée. *Tract.* 8vo. vol. 249. *Paris*, 1870. 8vo.
- BERTHAULT-DUCREUX, —. Manuel du cantonnier des chemins vicinaux. *Paris*, 1845. 16mo.
- BERTHELOT, M. P. E. Essai de mécanique chimique fondée sur la thermochimie. 2 vols. *Paris*, 1879. 8vo.
- Sur la force des matières explosives d'après la thermochimie. 3rd edition. 2 vols. *Paris*, 1883. 8vo.
- Explosives and their Power: translated and condensed from the French . . . by C. N. Hake and W. Nacnah, *etc.* *Lond.* 1892. 8vo.
- BERTHOLLET, C. L. and A. B. Elements of the art of Dyeing. 2nd edition. Translated from the French by Dr. A. Ure. 2 vols. *Lond.* 1824. 8vo.
- BERTHON, Rev. E. L. The Fareham Life-Boat. *Tract.* 8vo. vol. 374. *Fareham*, 1853. 8vo.
- Berthon's Patent Collapsing Life-Boat. *Tract.* 8vo. vol. 286. *Fareham*, 1854. 8vo.
- BERTHOT, P. Traité de l'élévation des eaux: calculs et renseignements pratiques, *etc.* *Paris*, 1893. 8vo.
- BERTHOUD, F. Éclaircissemens sur l'invention, la théorie, la construction, et les épreuves des nouvelles machines proposées en France, pour la détermination des longitudes en mer par la mesure du temps. *Paris*, 1773. 4to.
- BERTIN, L. E. Expériences de roulis factices du "Mytho"; expériences complémentaires sur le fonctionnement de l'oscillographe double. *Tract.* 4to. vol. 91. *Cherbourg*, 1880. 4to.
- Notes on Waves and Rolling. *Tract.* 8vo. vol. 241. *Lond.* 1874. 8vo.
- BERTRAND, J., Thermodynamique. *Paris*, 1887. 8vo.
- BERTRAND, P. Avis important sur le canal de l'Ourcq. *Tract.* 8vo. vol. 11. *Paris*, 1805. 8vo.
- Mémoire et discussion sur les moyens de rendre le Doubs navigable, pour opérer la jonction du Rhône au Rhin, suivant le projet imprimé en mars 1792. 2^{me} édition. *Tract.* 4to. vol. 11. *Paris*, 1804. 4to.

- BERTRAND, P.—*continued*. Précis de l'affaire concernant le canal proposé sous la citadelle de Besançon, pour la jonction du Rhône au Rhin. *Tract. 8vo. vol. 11. Paris, 1803. 8vo.*
- BERZELIUS, J. J. *Lärbok i Kemien. 2 vols. Stockholm, 1808–12. 8vo.*
- *Lehrbuch der Chemie. . . . Uebersetzt von F. Wöhler. 10 vols. Dresden and Leipzig, 1835–41. 8vo.*
- *Traité de chimie, minérale, végétale et animale. Seconde édition française, traduite par MM. Easlinger et Hoefer. 6 vols. Paris, 1845–50. 8vo.*
- *Théorie des proportions chimiques, et table synoptique des poids atomiques des corps simples. . . . 2^e édition. Paris, 1835. 8vo.*
- *The Use of the Blowpipe in chemical analysis, and in the examination of minerals. Translated from the French of M. Fresnel, by J. G. Children. Lond. 1822. 4to.*
- BESANT, W. H. *A Treatise on Hydromechanics. 3rd edition. Cambridge, 1877. 8vo.*
- BESEKE, C. *Der Nord-Ostsee-Kanal: seine Entstehungsgeschichte, sein Bau und seine Bedeutung in wirthschaftlicher und militärischer Hinsicht, etc. Kiel, 1893. 8vo.*
- BESENÇON, —. *Une visite au Château Caradoc [par C. D.]. Lettres d'un touriste [sur le Château Caradoc, par M. Besençon]. Tract. 8vo. vol. 160. Bayonne, 1866. 8vo.*
- BESSEGES. *Compagnie Houillère de Bessèges. Guide. [Maps in case.] Alais, 1882. 8vo.*
- BESSEL, F. W. *Fundamenta astronomiæ pro anno 1755 deducta ex observationibus J. Bradley in specula astronomica Grenovicensi per annos 1750–62 institutis. Regiomonti, 1818. folio.*
(With autograph letter of presentation from the Author to Dr. Young.)
- BESSEMER, Sir H. *Letters-patent for "Improvements in the manufacture of iron and steel." Tract. 4to. vol. 61. Lond. 1857. 4to.*
- *Letters-patent for the invention of "Improvements in shaping, pressing and rolling malleable iron and steel." Tract. 4to. vol. 106. Lond. 1856. 4to.*
- *Letters-patent for the invention of "Improvements in the manufacture of iron and steel." Tract. 4to. vol. 106. Lond. 1886. 4to.*
- *On the resistance of the Atmosphere to Railway Trains . . . together with an account of some improvements in railway-carriage axles. Tract. 4to. vol. 36. Lond. 1847. 4to.*
- *Specifications of letters-patent granted to H. Bessemer for inventions relating to the prevention of sea sickness, by steadying the cabins of steam or sailing vessels. 1872. 8vo.*
- BESSON, J. *Il Teatro de gl' instrumenti et machine di M. Jacopo Bessoni, . . . con una brieve necessaria dichiarazione dimostrativa di F. Beroaldo. Lione, 1582. folio.*

- BESSON, J.—*continued*. Teatro de los instrumentos y figuras matematicas y mecanicas . . . Nuevamente impresso.
Leon, 1602. folio.
- BÉTANCOURT, — DE. Analytical essay on the Construction of Machines, etc. 1820. See LANZ, —, and BÉTANCOURT, — DE.
— Description de la salle d'exercice de Moscou.
St. Petersburg, 1813. folio.
- Mémoire sur un nouveau système de navigation intérieure, etc. Tract. 4to. vol. 86. [Paris, 1807.] 4to.
- BETHELL, J. Description of a Patent for rendering Wood more durable, etc. Tract. 8vo. vol. 72. Lond. [1860?] 8vo.
- Extracts from the "Compte rendu des opérations" of the Belgian State Railway and from the "Annales des travaux publics de Belgique," relating to the . . . Creosoting Process. Tract. 8vo. vol. 137. Lond. 1863. 8vo.
- New Patent Improvements in preserving Timber, etc. Tract. 8vo. vol. 89. Lond. 1850. 8vo.
- Results of the Creosoting-Process for preserving Timber. Tract. 8vo. vol. 195. Bath, 1866. 8vo.
- Short Description of the improved Diving Dresses, as used by the Lords of the Admiralty, etc. Tract. 4to. vol. 42. [Lond. 1838?] 4to.
- Testimonials as to the success of his Patent Creosoting Process for preserving timber. Tract. 8vo. vol. 137. Lond. 1851. 8vo.
- BETTOCCHI, A. Delle acque pubbliche nelle città ed altri centri di popolazione, distribuzione, etc. Tract. 4to. vol. 76. Roma, 1865. 4to.
- BEUDANT, F. S. Essai d'un cours élémentaire et général des sciences physiques. Paris, 1815. 8vo.
- Minéralogie et géologie. 14^{me} édition. Paris, 1874. 8vo.
- BEVAN, G. P. The British Manufacturing Industries: edited by G. P. Bevan. 12 vols. Lond. 1876–77. 8vo.
- Vol. 1. Iron and steel, by W. M. Williams; Copper smelting, by J. A. Phillips; brass, tin, and zinc, by W. Graham.
- Vol. 2. Metallic mining, by W. W. Smyth; coal, by A. Galletly; collieries, by W. W. Smyth; building stones, by Prof. Hull; explosive compounds, by W. M. Williams.
- Vol. 3. Guns, nails, locks, wood-screws, hinges, buttons, pins, needles, saddlery, electroplate, by W. C. Aitken; pens and papier mâché, by G. Lindsey; cutlery, by F. Callis.
- Vol. 4. Acids and alkalies, by Prof. Church; oils and candles, by W. M. Williams; gas and lighting, by R. H. Patterson.
- Vol. 5. Wool, by Prof. Archer; flax and linen, by W. T. Charley; cotton, by I. Watts; silk, by B. F. Cobb.
- Vol. 6. Hosiery and lace, by W. Felkin; carpets, by C. Dresser; dyeing and bleaching, by T. Sims.

BEVAN, G. P.—The British Manufacturing Industries—*continued*.

Vol. 7. Pottery, by L. Arnoux ; glass and silicates, by Prof. Barff ; furniture and woodwork, by J. H. Pollen.

Vol. 8. Paper, by Prof. Archer ; printing and bookbinding, by J. Hatton ; engraving, by S. Davenport ; photography, by P. Le Neve Foster ; toys, by G. C. T. Bartley.

Vol. 9. Tobacco, by J. Dunning ; hides and leather, gutta-percha and India rubber, by J. Collins ; fibres and cordage, by P. L. Simmonds.

Vol. 10. Shipbuilding, by Capt. B. Pim, R.N. ; telegraphs, by R. Sabine ; agricultural machinery, by Prof. J. Wrightson ; railways and tramways, by D. K. Clark.

Vol. 11. Jewellery, by G. Wallis ; gold working, by Rev. C. Boutell ; watches and clocks, by F. J. Britten ; musical instruments, by E. F. Rimbault.

Vol. 12. Salt, preserved provisions, bread, by J. J. Manley ; sugar refining, by C. H. Gill ; butter and cheese, by M. Evans ; brewing and distilling, by T. Pooley.

Vols. 13 & 14. The Industrial Classes and Industrial Statistics. 2 vols.

— The London Water-supply, its past, present, and future. *Tract. 8vo. vol. 378. Lond. 1884. 8vo.*

— The Statistical Atlas of England, Scotland and Ireland, containing 45 maps with text. *Edinburgh and Lond. 1882. folio.*

BEVAN, J. [Reports on Drainage and Improvement of Lands in various districts of Ireland.] *Dublin, 1846–47. 8vo.*

BEVAN, W. Report . . . on Player's method of burning Anthracite. 1840. *See SCHAFHÄUTL, Dr. C., and BEVAN, W.*

BEVERLEY, W. On the Magic Square of the Knight's March. *Tract. 8vo. vol. 193. Lond. 1848. 8vo.*

BEVERLEY AND BARMSTON. Beverley and Barmston Drainage Bill. *Lond. 1880. folio.*

— Drainage Report of the Commissioners, *etc. Tract. 8vo. vol. 46. Hull, 1804. 8vo.*

BEVIS, Dr. J. An experimental Inquiry concerning . . . the two mineral waters lately discovered at Bagnigge Wells, near London, *etc. 2nd edition. Tract. 8vo. vol. 69. Lond. 1767. 8vo.*

BEWICK, J. Geological treatise on the district of Cleveland, in North Yorkshire, *etc. Lond. 1861. 8vo.*

BEWICK, T. J. Our home Metalliferous and Mining Industries : can they be revived and developed, and how ? *Tract. 8vo. vol. 525. Lond. 1892. 8vo.*

BEYER, C. Description of the Luggage Engine "Atlas," made . . . for the Manchester and Sheffield Railway, *etc. Tract. 8vo. vol. 84. Manchester, 1848. 8vo.*

- BEZOUT, E. Cours de mathématiques à l'usage du corps de l'artillerie. 4 vols. *Paris* 1795-99. 8vo.
(Vols. 1 and 2, 1st ed.; vols. 3 and 4, new ed.)
- BLADEGO, G. B. Fondazioni ad aria compressa. Ponti metallici. 8vo. Plates. *Torino*, 1886.
- BIANCHI, GEROLAMO. New System of Sails for Steamers. *Tract.* 8vo. vol. 464. [1888.] 8vo.
- BIANCHI, GIUSEPPE. L'impianto e l'esercizio dei tramways nella provincia di Milano. *Milano*, 1883. 8vo.
- BIBLE. The Holy Bible, containing the Old and New Testaments. *Lond.* 1831. 8vo.
- BICALHO, H. Improvement of the Bar of Rio Grande do Sul. *Tract.* 8vo. vol. 430. *Rio de Janeiro*, 1884. 8vo.
- BIDDER, G. P. Account of the Swing Bridge over the River Wensum at Norwich, etc. *Tract.* 8vo. vol. 499.
(From Min. Proc. Inst. C.E.) *Lond.* 1846. 8vo.
- Address to the Mechanical Science Section of the British Association. *Tract.* 8vo. vol. 168. *Norwich*, 1868. 8vo.
- Letter on the Main-drainage of the Metropolis, to the Metropolitan Board of Works. *Tract.* folio. vol. 12.
Westminster, 1858. folio.
- Report on Narrow gauge Railways for India. *Tract.* folio. vol. 15. *Westminster*, 1870. folio.
- Report on the improvement of the River Nene, etc. 1858. 4to.
See STEPHENSON, A., BIDDER, G. P., and STEPHENSON, G. R.
- Tables showing the Contents of Excavations, Area of Slopes, etc. *Lond.* [.] 12mo.
- [For Reports, etc., on the Drainage of the Metropolis:] See LONDON.—DRAINAGE.
- BIDDULPH, M.A., *Lieut.-Col.* Report, explanatory of a map of the Telegraph Lines of the Ottoman Empire . . . With an appendix, containing correspondence and papers relating to the line of telegraph between Constantinople and Bassorah. *Tract.* folio. vol. 15. *Lond.* 1860. folio.
- BIDLAKE, W. H. Dry Rot in Timber. *Lond.* 1889. 8vo.
- BIDONE, G. Expériences sur divers cas de la contraction de la veine fluide, etc. *Turin*, 1823. 4to.
- Expériences sur la dépense des reservoirs et sur l'accélération et la courbure qu'ils occasionnent à la surface du courant. *Turin*, 1824. 4to.
- Expériences sur la forme et sur la direction des veines et des courans d'eau lancés par diverses ouvertures. *Turin*, 1829. 4to.
- Expériences sur la percussion des veines d'eau. *Turin*, 1836. 4to.
- Expériences sur la propagation du remous. *Turin*, 1825. 4to.

- BIDONE, G.—*continued*. Expériences sur le remous et sur la propagation des ondes. Turin, 1820. 4to.
- Mémoire sur la détermination théorique de la section contractée des veines liquides. Turin, 1829. 4to.
- Recherches expérimentales et théoriques sur les contractions partielles des veines d'eau et sur l'écoulement par des tuyaux additionnels intérieurs et extérieurs. Turin, 1836. 4to.
- BIELEFELD, C. F. Portable Buildings, designed and built by C. F. Bielefeld. Tract. 8vo. vol. 381. Lond. 1853. 8vo.
- BIENAYMÉ, A. Les machines marines, etc. Paris, 1887. 4to.
- BIGELOW, F. H. Notes on a new method for the discussion of Magnetic Observations. [U.S. Dep. of Agriculture. Weather Bulletin, 2.] Washington, 1892. 8vo.
- BIGELOW, Hon. J. Report of the Hon. J. Bigelow, delegated by the Chamber of Commerce of New York to assist at the inspection of the Panama Canal in February, 1886. Tract. 8vo. vol. 417. New York, 1886. 8vo.
- BIGG, H. H. Orthopraxy: the mechanical treatment of deformities, etc. Lond. 1865. 8vo.
- BIGG, J. General Railway Acts: a collection of the public general acts for the regulation of railways . . . 1830–63. With a copious index. 10th edition. Westminster, 1864. 8vo.
- Clauses Consolidation Acts: a collection of Public General Statutes. 2nd edition. Lond. 1877. 8vo.
- BIGG, R. H. Artificial Limbs and Amputations. Lond. 1885. 8vo.
- The Orthopragms of the Spine: an essay on the curative mechanisms applicable to spinal curvature. Lond. 1880. 8vo.
- Spinal Curvature. Lond. 1882. 8vo.
- BIGGS, C. H. W. First Principles of Mechanical Engineering, etc. 1892. See IMRAY, J., and BIGGS, C. H. W.
- BIGG-WITHER, T. P. Pioneering in South Brazil. 2 vols. Lond. 1878. 8vo.
- BIGLAND, W. The Mechanic's Guide; or, a treatise on the laws of mechanics, etc. Tract. 8vo. vol. 181. Margate, 1797. 8vo.
(Imperfect.)
- BIGNAMISORMANI, E. I canali nella città di Milano. 2ª edizione. Tract. 8vo. vol. 169. Milano, 1868. 8vo.
- La fognatura di Torino. Tract. 8vo. vol. 415. Milano, 1885. 8vo.
- BIGSBY, J. J. Thesaurus Siluricus: the flora and fauna of the silurian period, etc. Lond. 1868. 4to.
- BILBAO. Memoria sobre el progreso y adelanto que han tenido las obras de mejora de la Ria de Bilbao, 1879–80, (1880–81, etc.). Bilbao, 1880, etc. 4to.

- BILES, J. H. Ocean Passenger Steamships. [*2nd Int. Mar. Congr.*] [*Lond.* 1893.] 8vo.
- BILGRAM, H. Slide Valve Gears, *etc.* Philadelphia, 1878. 8vo.
- BILGRAMI, S. H., and WILLMOTT, C. Historical and descriptive Sketch of His Highness the Nizam's Dominions. 2 vols. Bombay, 1883-84. 8vo.
- BILISTEIN, C. L. A. DE. Essai de navigation Lorraine, *etc.* Amsterdam, 1764. 12mo.
- BILLAUEDEL, J. B. Les landes en mil huit cent vingt-six. *Tract.* 4to. vol. 37. Bordeaux, 1837. 4to.
- BILLING, S., and PRINCE, A. The Law and Practice of Patents and Registration of Designs, *etc.* Lond. 1845. 8vo.
- BILLINGS, E. Catalogues of the Silurian Fossils of . . . Anticosti. 1866. See CANADA.—[*Geological Survey.*]
- Paleozoic Fossils. 1865-74. See CANADA.—[*Geological Survey.*]
- BILLINGS, J. S. The Principles of Ventilation and Heating, *etc.* Lond. 1884. 8vo.
- Report on the Mortality and Vital Statistics of the United States. [*U.S.A., 10th Census.* Vols. 11 and 12.] Washington, 1885. 4to.
- BILLINGS, R. W. The Power of Form applied to Geometric Tracery : one hundred designs, *etc.* Lond. 1851. 8vo.
- BI-METALLIC CONFERENCE. The proceedings of the Bi-Metallic Conference, held at Manchester, *etc.* Manchester, 1888. 8vo.
- BINNEY, E. W., and Co. E. W. Binney and Co. *versus* The Clydesdale Chemical Co. Edinburgh, 1860. 4to.
- BINNIE, A. R. Address . . . on "Heat in its relation to Coal, with remarks on the conversion of heat into work." *Tract.* 8vo. vol. 467. Bradford, 1888. 8vo.
- Bradford Corporation Waterworks. Prevention of the waste of water. Reports, *etc.* *Tract.* 8vo. vol. 444. Bradford, 1885-86. 8vo.
- Bradford Corporation Waterworks. Upper Barden reservoir and conduits. Specification, tender for work, *etc.* *Tract.* folio. vol. 21. Bradford, 1876. folio.
- Description of the Nágpur (Ambajhari) waterworks, projected and carried out 1869-72. See MORRIS, J. H., and BINNIE, A. R.
- Lectures. Water-supply ; rainfall, reservoirs, conduits, and distribution, *etc.* Chatham, 1878. folio.
- — 2nd edition, revised. Chatham, 1887. 8vo.
- London Water-Supply Inquiry. Engineer's reports, *etc.* *Tract.* 8vo. vol. . Lond. 1890-91. 8vo.
- Nagpur Waterworks. Report on the Ambajerry Projects, 1869. See INDIA.—NAGPUR.

- BINNIE, A. R.—*continued*. Public Works in India. A letter addressed to the Right Hon. W. E. Gladstone and the other members of Her Majesty's Government. *Tract. 8vo. vol. 332. Lond. 1881. 8vo.*
- Rainfall Diagram Tables. 1873. *See INDIA.*—[*Rainfall.*]
- Report on the Main Drainage of London, 1891. *See BAKER, Sir B., and BINNIE, A. R.*
- Report [to the London County Council] on the Flow of the Thames. [*Lond.*] 1892. folio.
- Water-supply. [1891 ?] folio.
- Waterworks. Reports, lectures and specifications. 1873–80. folio.
- BINNIE, A. R., and DIBDIN, W. J. [Report to the] London County Council on Sewage Treatment at Barking and Crossness. *Tract. folio. vol. 47. Lond. 1891. s. sh. folio.*
- BINNIE, W. J. E. Account of an Electric Self-recording Rain Gauge. *Tract. 8vo. vol. 518. [Lond. 1892.] 8vo.*
- BINNINGER, G. La véritable cause du flux et reflux de la mer. *Halle, 1749. 8vo.*
- BINNS, W. An elementary treatise on Orthographic Projection; being a new method of teaching the science of mechanical and engineering drawing, *etc.* *Lond. 1857. 8vo.*
- The Second Course of Orthographic Projection . . . with some practical remarks on the teeth of wheels. 2nd edition. *Lond. 1876. 8vo.*
- BION, N. The construction and principal uses of Mathematical Instruments: translated from the French by E. Stone. 2^{me} édition. *Lond. 1758. folio.*
- BIOT, J. B. Précis élémentaire de physique expérimentale. 2 vols. *Paris, 1817. 8vo.*
- Recherches sur l'intégration des équations différentielles, partielles, et sur les vibrations des surfaces. *Tract. 4to. vol. 18. [Paris, 1800 ?] 4to.*
- Traité de physique expérimentale et mathématique. 4 vols. *Paris, 1816. 8vo.*
- Tables barométriques portatives, donnant les différences de niveau par une simple soustraction. *Tract. 8vo. vol. 191. Paris, 1811. 8vo.*
- BIRCH, B. City Latin, or, critical . . . Remarks on the Latin inscription on laying the first stone of the intended new bridge at Blackfryars, *etc.* *Lond. 1760. 8vo.*
- BIRCH, G. H. Cantor Lectures on the Decorative Treatment of Metal in Architecture, *etc.* *Lond. 1883. 8vo.*
- BIRCH, J., and Co. A guide-book to Technical Literature, *etc.* *Lond. [1891.] 8vo.*
- BIRCH, R. W. P. The Disposal of Town Sewage. *Tract. 8vo. vol. 194. Lond. 1870. 8vo.*

- BIRCH, R. W. P.—*continued*. Sewage Irrigation by Farmers ; or, fifty instances of profitable sewage utilization. *Tract. 8vo. vol. 297.*
Lond. 1878. 8vo.
- BIRCH, T. The history of the Royal Society of London, *etc.* 4 vols.
Lond. 1756–57. 4to.
- BIRCKEL, J. J. Historical and descriptive Sketch of the Mersey Docks and Harbour. *Liverpool, 1865. 4to.*
- BIRD, C. Underground Water. *Tract. 8vo. vol. 482.*
Rochester, 1887. 8vo.
- BIRD, G. Elements of Natural Philosophy. *Lond. 1839. 8vo.*
 — Lectures on Electricity and Galvanism. Revised and extended.
Lond. 1849. 8vo.
- BIRD, J. The Method of constructing Mural Quadrants : exemplified by a description of the brass mural quadrant in the Royal Observatory at Greenwich. *Tract. 4to. vol. 5.*
Lond. 1768. 4to.
- BIRD, P. H. Hints on Drains, Traps . . . and Sewage Disposal. *Tract. 8vo. vol. 341.*
Blackpool, 1877. 8vo.
- BIRKBECK, G. A lecture on the Preservation of Timber by Kyan's patent for preventing dry rot, *etc.* *Tract. 8vo. vol. 72.*
Lond. 1834. 8vo.
- BIRKBECK, G., and ADCOCK, H. On the Steam Engine.
Lond. 1827. 4to.
- BIRKENHEAD.—[*Free Public Library.*] Annual Reports, *etc.*
Birkenhead, 1887, etc. 8vo.
- [Water Supply.] Report from the Surveying Officers and Minutes of Evidence on the Birkenhead Improvement Bill (Water).
Lond. 1847. folio.
- BIRKINBINE, J. Roasting Iron-ores. *Tract. 8vo. vol. 425.*
Philadelphia, 1883. 8vo.
- The Cerro de Mercado (Iron mountain) at Durango, Mexico.
Tract. 8vo. vol. 425. Philadelphia, 1884. 8vo.
- BIRKINSHAW, J. C. Report of J. C. Birkinshaw respecting the Foss Navigation. *Tract. 8vo. vol. 282.* *York, 1852. 8vo.*
- BIRMINGHAM. — *Mason Science College.* See MASON SCIENCE COLLEGE.
- *Philosophical Institution.* Reports by the committee of managers.
Tract. 8vo. vol. 68. Birmingham, 1836–41. 8vo.
- [Explosions.] Report on explosion at a small Fireworks Factory at Nechells Park Road, Birmingham, by Maj. A. Ford.
Lond. 1881. folio.
- Report on the circumstances attending an explosion which took place at the factory of Messrs. Kynoch and Co., near Birmingham, on the 2nd November, 1886.
Lond. 1887. folio.

- BIRMINGHAM**—*continued*.—[*Improvements*.] Act for improving Birmingham. *Lond.* 1851. folio.
- [Libraries.] Twelfth annual Report. *Tract.* 8vo. vol. 239. *Birmingham*, 1873. 8vo.
- [Motive Power.] Report on a scheme for supplying Compressed Air Motive Power in the town of Birmingham. By T. A. English, and others. *Tract.* folio. vol. 33. *Lond.* 1883. folio.
- [Sewerage.] An Act to confirm certain provisional orders of the Local Government Board forming the Birmingham, Tame and Rea Main Sewerage District, Lower Thames Valley Main Sewerage District, and the Weymouth Port Sanitary Authority. *Lond.* 1877. folio.
- Report of the Sewage Inquiry Committee. *Birmingham*, 1871. 8vo.
- Report of the Public Works Committee on the Sewage question. *Tract.* 8vo. vol. 233. *Birmingham*, 1871. 8vo.
- [Water Supply.] An Act for supplying with Water the town and neighbourhood of Birmingham [1826]. *Lond.* 1848. folio.
- [Album of Photographs of the Birmingham Waterworks.] *Birmingham*, [] folio.
- Birmingham, Bradford, Leeds, Liverpool, and Manchester. Copy of Queries with reference to certain particulars in the Return, No. 397, "Water Supply," of Session 1882; and the Replies thereto. *Lond.* 1883. folio.
- — Return. *Lond.* 1882. folio.
- BIRMINGHAM ARCHITECTURAL ASSOCIATION.** Report, Session 1887–88. 1887–88. 8vo.
- BIRMINGHAM COMPRESSED-AIR COMPANY.** [Description of Scheme for supplying Compressed-Air Motive Power.] *Tract.* 8vo. vol. 475. *Birmingham*, 1886. 8vo.
- BIRMINGHAM AND BILSTON CANAL.** An Act for making and maintaining a navigable Canal from Birmingham to Bilston and from thence to Autherley, *etc.* *Lond.* 1768. folio.
- BIRMINGHAM AND FAZELEY CANAL.** Act for making . . . the Canal. *Lond.* 1827. folio.
- BIRMINGHAM AND LICHFIELD RAILWAY.** Minutes of Evidence taken before the Select Committee on Railway Bills, on the Birmingham and Lichfield Junction Railway Bill. *Lond.* 1878. folio.
- BIRMINGHAM CANAL.** Act and amended Acts [relating to the Canal]. *Lond.* 1768–1818. folio.
- An Act to consolidate and extend the Powers and Provisions of the several Acts relating to the . . . Company. *Lond.* 1835. folio.
- An Act for enabling the Company of Proprietors to make a new Cut and for extending and altering some of the provisions of their present Act. *Lond.* 1839. folio.

- BIRMINGHAM CENTRAL TRAMWAYS COMPANY.** Birmingham Central Tramways, Limited. The cable system. (Reprinted from Birmingham and Glasgow newspapers.) *Tract.* 8vo. vol. 435. *Birmingham*, 1886. 8vo.
- Cable Tramways . . . Specification for the manufacture and delivery of 6 miles, or thereabouts, of Steel Wire Cables at the Hockley Brook Dépôt, Birmingham. *Tract.* folio. vol. 41. *Birmingham*, 1887. folio.
- BIRMINGHAM SHIP CANAL.** Report of the Inquiry Committee of the Town Council [concerning the proposed Ship Canal]. *Tract.* 8vo. vol. 455. *Birmingham*, 1888. 8vo.
- BIRNIE, R., Capt.** Gun-making in the United States, etc. *New York*, 1888. 8vo.
- BIROT, F.** Guide pratique du conducteur des ponts et chaussées et de l'agent voyer. Principes de l'art de l'ingénieur. 3^e édition. (Atlas of plates.) *Paris*, [1869.] 8vo.
- — 4^e édition. 2 parts. *Paris*, [1883.] 8vo.
(Part 1 wanting.)
- BIŚĆAN, W.** Formeln und Tabellen. Hilfs- und Notizbuch für den praktischen Elektrotechniker. *Leipzig*, 1891. 12mo.
- BISCHOF, G.** Elements of Chemical and Physical Geology. Translated by B. H. Paul and J. Drummond. [*Cavendish Society.*] 3 vols. *Lond.* 1854–59. 8vo.
- On Putrescent Organic Matter in Potable Water. *Tract.* 8vo. vol. 350. *Lond.* 1877. 8vo.
- Sanitary notes on Potable Water. *Tract.* 4to. vol. 92. *Lond.* 1879. 4to.
- BISCOE, H. S. T.** Hints on the management of private Electric-Light Plants, with Priestman's Oil Engine. *Lond.* 1890. 12mo.
- BISHOP, J. L.** A History of American Manufactures from 1608 to 1860. 3 vols. *Philadelphia*, 1868. 8vo.
- BISHOP, P. J.** The Channel Railway : Tube or Tunnel, etc. *Tract.* 8vo. vol. 260. *Lond.* 1876. 8vo.
- BISHOP'S CASTLE RAILWAY.** Report by the Board of Trade . . . on the Classification of Merchandise Traffic and Schedule of Maximum Rates, etc. *Lond.* 1891. folio.
- BISSELL, L.** Letters patent for invention of "Improvements in trucks for locomotive engines." *Tract.* 4to, vol. 50. *Lond.* 1858. 4to.
- BIXBY, W. H.** New Ordnance Material and Armour Material in Europe. *Tract.* folio. vol. 40. *New York*, 1886. folio.
- Notes on the Pointe de Grave, river Gironde, France. *Tract.* 8vo. vol. 342. *Washington*, 1881. 8vo.
- BJÖRLING, P. R.** Practical Handbook on direct-acting Pumping-Engine and Steam-Pump construction. *Lond.* 1889. 8vo.

- BJÖRLING, P. R.—*continued*. Pumps: historically, theoretically, and practically considered. *Lond.* 1890. 8vo.
- Water or Hydraulic Motors. *Lond.* 1894. 8vo.
- BLACK, A. On Wages, Trades' Unions, and Strikes; a lecture, *etc.* *Tract.* 8vo. vol. 125. *Lond.* 1859. 8vo.
- BLACK, J. Report on the Formation and Management of young Plantations. *Tract.* 8vo. vol. 217. *Edinb.*, 1855. 8vo.
- Report on the Forms and Conditions of an agricultural Lease. *Tract.* 8vo. vol. 217. *Edinb.* 1862. 8vo.
- BLACK CREEK, *Tasmania*. Report on the future Prospects . . . of Black Creek Gold Field, county of Dorset. By G. Thureau. [*Hobart*,] 1882. folio.
- BLACK RIVER. Proposed Colony in the district of Black River, on the North Coast of Central America. *Tract.* 8vo. vol. 440. *Lond.* 1838. 8vo.
- BLACK SLUICE. Copy of reports of engineers and others on the Drainage and Navigation of Black Sluice, 1799 to 1846. *Tract.* 8vo. vol. 277. [1846?] 8vo.
- BLACKADDER, W. Report relative to the Strathmore Railway, being the extension of the Dundee and Newtyle along Strathmore, between Coupar and Forfar. *Tract.* 4to. vol. 12. *Dundee*, 1833. 4to.
- BLACKBECK, *Haverthwaite, Lancashire*. Report on an Explosion of Gunpowder: by Lt.-Col. Majendie. *Lond.* 1881. folio.
- Report on Explosion at Blackbeck Gunpowder Mills: by Col. Ford. *Lond.* 1884. folio.
- BLACKBOURN, J. Observations on the working of the Marine worms and the remedies applied in the harbour of San Francisco, California. *Tract.* 8vo. vol. 251. *Melbourne*, 1874. 8vo.
- BLACKBURN. Lancashire and Yorkshire Railway. Minute by the Board of Trade on the Blackburn collision. *Tract.* folio. vol. 31. *Lond.* 1882. folio.
- BLACKBURN, A. B. Dynamos: the consideration of the chief features which regulate their application, *etc.* *Tract.* 8vo. vol. 515. *Manchester*, 1891. 8vo.
- BLACKBURN, A. H., and STEVENS, J. The Engineering Telegraph Code . . . The Code words by G. Ager. *Lond.* 1892. 8vo.
- BLACKBURN, H. Sir Isaac Newton's "Principia." 1871. *See* THOMSON, Sir W., and BLACKBURN, H.
- BLACKBURN, I. The Theory and Science of Naval Architecture. *Tract.* 8vo. vol. 286. *Plymouth*, 1836. 8vo.
- BLACKBURNE, J. W. Hydraulic and other tables, with rules, *etc.* *Oldham*, 1870. 8vo.
- BLACKFORD, W. W. Map and Profile of the Virginia and Tennessee Railroad. *Folding in Tract.* 8vo. *Richmond*, 1856. 8vo.

BLACKFRIARS BRIDGE. Act for Blackfriars Bridge.

[Lond. 1765 ?] folio.

— The Expedience . . . of a new Bridge, at or near Blackfryars, etc. Lond. 1756. 8vo.

— Notes of Information furnished by the several Engineers who attended the Bridge-House Estates Committee in relation to the designs and estimates . . . for the construction of a new Bridge. Lond. 1862. folio.

— Report to the Court of Common Council from the Bridge-House Estates Committee, upon the reference to obtain Designs and Estimates for the Construction of a new Bridge at Blackfriars, and making temporary provision for the traffic. Lond. 1861. folio.

— Report to the Court of Common Council from the Committee appointed in relation to Blackfriars Bridge. Tract. folio. vol. 49. Lond. 1833. folio.

— Reports and Estimates for a Bridge of five arches, in accordance with the resolution of the Bridge-House Estates Committee. Lond. 1862. folio.

— Reports to the Court of Common Council from the Committee appointed in relation to Blackfriars Bridge. Lond. 1840–43. folio.

— Specification of the Repairs of Blackfriars Bridge. Tract. folio. vol. 49. Lond. 1833. folio.

BLACKIE, A. B. Wood Pavement, and its advantages ; with a view of the different systems, contrasted with that of David Stead, Esq., the original patentee. Appendix. Tract. 8vo. vol. 201. Lond. 1842. 8vo.

— Wood Pavement ; its origin and progress. Tract. 8vo. vol. 74. Lond. 1843. 8vo.

BLACKIE, W. G. The Imperial Atlas of modern Geography, etc. Lond. 1860. folio.

— The Imperial Gazetteer ; a general dictionary of geography, etc. 2 vols. Glasgow, 1860. 4to.

— A Supplement to the Imperial Gazetteer. Lond. and Glasgow, 1868. 4to.

— Villa and Cottage Architecture ; select examples of country and suburban residences, etc. [By various Authors.] Lond. 1868. folio.

BLACKLEY, Rev. W. L. Collected essays on the Prevention of Pauperism. 3rd edition. Lond. 1883. 8vo.

— What is National Insurance ? Tract. 8vo. vol. 512. Lond. [1890 ?] 8vo.

BLACKLOCK, A. Description of Heathcoat's Steam Plough. Tract. 8vo. vol. 62. Dumfries, 1837. 8vo.

- BLACKMORE, E.** *The British Mercantile Marine: its past, present, and probable future.* [Papers of the Shipmasters' Soc., Nos. 1, 3, 7, 11, 14, 17, 20, 23, 26.] *Lond.* 1890-93. 8vo.
- BLACKPOOL.** *Prospectus of the South Shore Pier and Pavilion Company.* *Tract. folio. vol. 46.* *Manchester,* 1890. folio.
- BLACKSTONE, Sir W.** *Commentaries, systematically abridged: with great additions by Samuel Warren.* *Lond.* 1855. 8vo.
- BLACKWELL, J. H.** *Examination of the Mineral Districts of the Nerbudda Valley.* 1857. See INDIA.—NERBUDDA.
- *Report upon the iron-works, mines, freehold estates, and forests of Rockahammar, Hammerbacken, Guldsmédshyttan, &c., situated in the province of Örebro, in Sweden.* *Tract. 8vo. vol. 144.* *Lond.* 1864. 8vo.
- BLACKWELL, J. K.** *Explosions in Coal Mines, their causes, and the means available for their prevention or control, etc.* *Tract. 8vo. vol. 495.* *Lond.* 1853. 8vo.
- BLACKWELL, L. B.** *Report on the Feasibility of supplying Christchurch with water from the River Waimakariri through the media of cylinders.* *Tract. 8vo. vol. 378.* *Christchurch,* 1879. 8vo.
- BLACKWELL, T. E.** *Descriptive Statement of the great Water Highways of the Dominion of Canada, etc.* *Tract. 8vo. vol. 282.* *Montreal,* 1874. 8vo.
- *On the Hydrology of the Basin of the River St. Lawrence.* *Tract. 4to. vol. 62.* 1866. 4to.
- *Report on the Grand Trunk Railway of Canada for . . . 1859.* *Tract. 8vo. vol. 140.* *Lond.* 1860. 8vo.
- *Report to the Sanitary Committee of the Borough of Devizes.* *Tract. folio. vol. 11.* *Devizes,* 1848. folio.
- *Results of . . . experiments on the discharge of Water by Overfalls or Weirs.* *Tract. 8vo. vol. 498.* *Lond.* 1851. 8vo.
(From Min. Proc. Inst. C.E.)
- BLACKWOOD, F. P., Capt., R.N.** *Directions for the Outer Passage from Sydney to Torres Strait, to accompany the chart of the Barrier Reefs.* *Tract. 8vo. vol. 70.* *Lond.* 1847. 8vo.
- BLADES, R.** *Description of Machinery and Apparatus for cleansing Sewers, etc.* *Tract. 8vo. vol. 105.* *Liverpool,* 1853. 8vo.
- BLAGROVE, G. H.** *Shoring and its application, etc.* *Lond.* 1887. 8vo.
- BLAINE, R. G.** *Elementary lessons . . . in Practical Mechanics and Machine Design: with an introduction by Prof. J. Perry.* New edition, revised and enlarged, etc. *Lond.* 1893. 8vo.
- *Numerical examples in Practical Mechanics and Machine Design.* With an introduction by Prof. John Perry. *Lond.* 1888. 8vo.
- BLAIR, A. A.** *The Chemical Analysis of Iron, etc.* *Lond.* 1888. 8vo.

- BLAIR, J. F. Regulation of the Danube near Vienna. Report as to the works proposed between Kuchel-Au and Fischament, with . . . estimates, October, 1868. *Tract. 8vo. vol. 173.*
Lond. 1869. 8vo.
- BLAIR, W. N. Report on East and West Coast and Nelson Railway, 1886. *Tract. folio. vol. 39.* *Wellington, 1886. folio.*
- The Building Materials of Otago and South New Zealand generally. *Dunedin, 1879. 8vo.*
- The Industries of New Zealand. *Tract. 8vo. vol. .*
Dunedin, 1884. 8vo.
- The Industries of New Zealand : an address, etc. *Tract. 8vo. vol. 445.* *Christchurch, 1887. 8vo.*
- BLAKE, J. H. Address at the anniversary meeting of the Norwich Geological Society, etc. *Tract. 8vo. vol. 332.*
Hertford, 1880. 8vo.
- On the Conservancy of Rivers, Prevention of Floods, Drainage, and Water Supply. *Tract. 8vo. vol. 348.* *Hertford, 1881. 8vo.*
- BLAKE MANUFACTURING COMPANY. Duty trial of a Fly-wheel, High Duty, Automatic Cut-off, Cross-compound Pumping Engine. [A report by C. H. Peabody.] *Tract. 8vo. vol. .*
New York, 1892. 8vo.
- BLAKELEY, T. A., *Capt.* A cheap and simple method of manufacturing strong Cannon. *Tract. 8vo. vol. 27.* *Lond. 1858. 8vo.*
- A few Remarks on the Science of Gunnery. *Tract. 8vo. vol. 120.*
Lond. 1855. 8vo.
- Letter claiming the original invention of an indispensable feature of the Armstrong gun, etc. *Tract. 8vo. vol. 214.*
Lond. 1859. 8vo.
- A proposed new Method of constructing Cannon. With remarks on the objections raised by the government officials. *Tract. 8vo. vol. 128.* *Lond. 1858. 8vo.*
- Specification of patent. Improvements in Ordnance Plate. *Tract. 4to. vol. 413.* *Lond. 1859. 4to.*
- BLAKENEY, W. H. Continuous Railway Brakes . . . with copious illustrations of the Westinghouse automatic and vacuum automatic. *Tract. 8vo. vol. 491.* *Lond. 1889. 8vo.*
- BLAKESLEY, T. H. Electricity at the Board of Trade. *Tract. 8vo. vol. 361.* *Lond. 1883. 8vo.*
- On a geometrical determination of the conditions of maximum efficiency in the case of the transmission of power by means of alternating electric currents. *Tract. 8vo. vol. 493.*
[Lond.] 1888. 8vo.
- On Magnetic Lag. *Tract. 8vo. vol. 493.* *[Lond.] 1888. 8vo.*
- BLANCHARD, G. R. Traffic Unity, popularly called "Railway Pools." *Tract. 8vo. vol. 465.* *New York, 1884. 8vo.*

- BLANQUAERT, and OTHERS. [Report on the Westinghouse and Smith Brakes. In French.] *Tract. 4to. vol. 82.*
Bruzelles, 1877. 4to.
- BLAND, A., and R. Plan of the Parish of Clapham, in the county of Surrey.
Lond. 1849. 4to.
- BLAND, W. Experimental Essays on the principles of construction in arches, piers, buttresses. . . . 3rd edition. *Lond. 1867. 8vo.*
- The Forms of Ships and Boats. . . . 5th edition . . . corrected.
Lond. 1868. 8vo.
- Measurements of the Altitude of the Hills and Valleys, and the Depths of Wells, through a part of Kent. *Tract. 4to. vol. 80.*
Sittingbourne, [1870?] 4to.
- BLANFORD, H. F. Indian Meteorological Memoirs. 1876, *etc.* Meteorological Observations. 1880–88. Report on Meteorology. 1876, *etc.* See INDIA.—[*Meteorology.*]
- An introduction to the use of the Mouth Blowpipe. 1875. 8vo.
See SCHEERER, T., and BLANFORD, H. F.
- On Meteorological Observations in tropical countries. *Tract. 8vo. vol. 527.*
[1892?] 8vo.
- On the Connexion of the Himalaya Snowfall with dry winds and seasons of drought in India. *Tract. 8vo. vol. 368.*
Lond. 1884. 8vo.
- On the diurnal Variation of the Rainfall at Calcutta. *Tract. folio. vol. 42.*
[1885?] folio.
- On the relations of the diurnal Barometric Maxima to certain critical conditions of temperature, cloud, and rainfall. *Tract. 8vo. vol. 468.*
Lond. 1888. 8vo.
- A practical Guide to the climates and weather of India, Ceylon, and Burmah, *etc.*
Lond. 1889. 8vo.
- Theory of the Winter Rains of Northern India. *Tract. 8vo. vol. 368.*
Calcutta, 1884. 8vo.
- The Winds of Northern India in relation to the temperature and vapour-constituent of the atmosphere. *Tract. 4to. vol. 74.*
Lond. 1874. 4to.
- BLANTYRE, Lord. Arbitration between Lord Blantyre and the trustees of the Clyde Navigation. 2 vols. *Lond. 1885. 4to.*
- BLANTYRE COLLIERY. Explosion of Fire-Damp. Official Report.
Lond. 1877. folio.
- Report on the Explosion. *Lond. 1878. folio.*
- Report on the Explosion, by W. Alexander and R. Moore.
Lond. 1879. 8vo.
- Special Report on the second Explosion, by J. Dickinson.
Lond. 1879. folio.
- BLASHFIELD, J. M. Examples of Terra-cotta Chimney Shafts, *etc.*
Stamford, [1868.] 4to.

- BLASIUS, R. Der Gesundheitszustand der Städte des Herzogthums Braunschweig, 1883-4. *Tract.* 8vo. vol. 410.
Braunschweig, 1885. 8vo.
- BLASIUS, W. Storms : their nature, classification, and laws, with the means of predicting them by . . . the clouds.
Philadelphia, [1875.] 8vo.
- BLASS, E. Ueber Wassergas. *Tract.* 4to. vol. 104.
Düsseldorf, 1886. 4to.
- BLAVIER, E. E. Des grandeurs électriques et de leur mesure en unités absolues. *Paris*, 1881. 8vo.
- Étude des courants telluriques. *Tract.* 4to. vol. 93.
Paris, 1884. 4to.
- BLECHYNDEN, A. A Description of the new Sand Dredger "Brancker" for the Mersey Docks and Harbour Board. [2nd *Int. Mar. Congr.*] *[Lond.* 1893.] 8vo.
- BLENKARN, J. Practical Specifications of Works executed in architecture, civil and mechanical engineering, and in road-making, etc. *Lond.* 1865. 8vo.
- BLINN, L. J. A practical Workshop Companion for tin, sheet iron, and copper-plate workers. *Philadelphia*, 1869. 8vo.
- BLIOCH, —. Russian Railways. Atlas. *St. Petersburg*, 1878. folio.
- BLOCK, M. Dictionnaire de l'administration française.
Paris, 1856. 8vo.
- BLOCQUEVILLE, *Marquise de* [A. L. Davout d'Eckmuhl.] Testament de Mme. la marquise de Blocqueville. Le phare d'Eckmuhl sur la pointe de Penmarc'h. *Paris*, 1893. 8vo.
- BLODGET, L. Climatology of the United States, and of the temperate latitudes of the North American Continent.
Philadelphia, 1857. 8vo.
- BLOEDE, V. G. The Reducer's Manual, and Gold and Silver Worker's Guide, etc. *New York*, 1867. 12mo.
- BLONDEL, A. On Flash-lights and the Physiological Perception of Instantaneous Flashes. [2nd *Int. Mar. Congr.*] *[Lond.* 1893.] 8vo.
- On the Electric Machinery and Arc Light of Lighthouses, etc. [2nd *Int. Mar. Congr.*] *[Lond.* 1893.] 8vo.
- Théorie des projecteurs électriques. *Tract.* 8vo. vol. 517.
Paris, 1894. 8vo.
- BLOOD, W. B. Strains upon Lattice Beams, etc. 1853. See DOYNE, W. T., and BLOOD, W. B.
- BLORE, W. L. Statistics of the Cape Colony. *Tract.* 8vo. vol. 208.
Cape Town, 1871. 8vo.
- BLOTNITZKY, L. Ueber die Bewässerungs-Kanäle in den Walliser-Alpen. *Tract.* 8vo. vol. 357. *Bern*. 1871. 8vo.
- BLOUNT, A. E. Report of Experiments in the Farm Department of the State Agricultural College of Colorado, etc. *Tract.* 8vo. vol. 454. *Fort Collins, Colo.*, 1887. 8vo.

- BLOXAM, C. L. Chemistry, inorganic and organic, with experiments, etc. *Lond.* 1867. 8vo.
- Metals, their Properties and Treatment. *Lond.* 1870. 12mo.
- — New edition, augmented by A. K. Huntington. *Lond.* 1882. 8vo.
- On the Meteorology of Newport, in the Isle of Wight, as deduced from observations . . . 1841–56. 2nd edition. *Lond.* 1867. 4to.
- BLOXAM, J. M. On the Principles and Construction of a new instrument called the Dipleidoscope. *Tract.* 8vo. vol. 189. *Lond.* 1846. 8vo.
- BLOXAM, M. H. The principles of Gothic Ecclesiastical Architecture elucidated by question and answer. 5th edition. *Lond.* 1843. 12mo.
- BLOXHAM, T. On the Composition of the Building Sandstones of Craighleith, Binnie, Gifnock, and Patrick Bridge: with a preliminary note by George Wilson, M.D. *Tract.* 8vo. vol. 101. *Edinburgh*, 1858. 8vo.
- BLUNDELL, R. Blundell's agricultural Drainage Level, etc. *Tract.* 8vo. vol. 84. [1848.] 8vo.
- BLUNTSCHLI, F., and LASIUS, G. Der neue Physikbau für das eidgenössische Polytechnikum zu Zürich. *Tract. folio.* vol. 44. *Zürich*, 1887. folio.
- BLYTH, A. W. A Dictionary of Hygiene and Public Health. *Lond.* 1876. 8vo.
- BLYTH, B. H. Report as to supply of water from the Moorfoot Hills. *Tract.* 8vo. vol. 306. 1863. 8vo.
- BOARD OF TRADE. The Board of Trade and the Kentish railway schemes. *Tract.* 8vo. vol. 228. *Lond.* 1845. 8vo.
- Railway memorial to the Board of Trade. *Tract.* 8vo. vol. . *Lond.* 1857. 8vo.
- Railways and the Board of Trade. 3rd edition. *Tract.* 8vo. vol. . *Lond.* 1845. 8vo.
- [Library.] Catalogue of the library of the Board of Trade. *Lond.* 1866. 8vo.
- [Meteorological Department.] Reports. *Lond.* 1857–64. 8vo. Continued as "Report of the Meteorological Committee of the Royal Society. See also METEOROLOGICAL OFFICE.
- BOASE, G. C., and COURTNEY, W. P. Bibliotheca Cornubiensis: a catalogue of the writings of Cornishmen, and of works relating to the County of Cornwall, etc. 3 vols. *Lond.* 1874–82. 8vo.
- BOCCARDO, G. Fisica del globo: spazi, climi e meteore, etc. *Genova*, 1868. 8vo.
- BOCCI, D. Trattato della bonifica idraulica delle terre impaludate. *Roma*, 1891. 8vo.
- Dei venti e degli insabbiamenti marini, lagunari e fluviali nell'estuario Veneto, etc. *Roma*, 1890. 8vo.

- BOCCI, D.—*continued*. Studi idrometrici dei fiumi Po e Ticino presso la loro confluenza. *Tract.* 8vo. vol. 252. *Roma*, 1874. 8vo.
- BOCHET, H. Mécanique : nouvelles recherches expérimentales sur le frottement de glissement, spécialement sur des rails de chemins de fer, *etc.* *Paris*, 1861. 8vo.
- BÖCK, F., and ABT, R., Das System Abt für combinirte Adhäsions- und Zahnradbahnen. *Tract.* 4to. vol. 111. *Wien*, 1888. 4to.
- BODDE, D. An Essay, to show that Petroleum may be used with advantage in manufacturing operations, for the purpose of heating steam-boilers, *etc.* *Tract.* 8vo. vol. 153.
The Hague, [1865 ?] 8vo.
- BODEMANN, T., and KERL, B. A treatise on the Assaying of Lead, copper, silver, gold, and mercury. Translated from the German, by W. A. Goodyear. *New York*, 1868. 8vo.
- BODMER, G. R. Hydraulic Motors. Turbines and Pressure Engines, *etc.* *Lond.* 1889. 8vo.
- BODMER, J. G. The advantages of working stationary and marine engines with high-pressure steam, *etc.* *Tract.* 8vo. vol. 88.
Lond. 1845. 8vo.
- Explanation of his improved Fire-grate. *Tract.* 8vo. vol. 70.
Lond. [1860 ?] 8vo.
- Grates, Stoves, or Furnaces of Steam-engines, *etc.*
Lond. 1834. 8vo.
- Improvements in Machinery for Propelling Vessels, Locomotive Engines, *etc.* *Lond.* 1841. 8vo.
- Improvements in Steam-engines, Railway Carriages, Propulsion of vessels, *etc.* *Lond.* 1844. 8vo.
- Machinery for Cleaning, carding . . . and spinning Cotton-wool. *Lond.* 1824. 8vo.
- Machinery for Cutting, planing, . . . and rolling Metal, *etc.* *Lond.* 1839. 8vo.
- Machinery for Preparing, roving, and spinning Cotton and Wool. *Lond.* 1835. 8vo.
- Machinery for spinning and doubling cotton. *Lond.* 1837. 8vo.
- Metallic Hoops and Tyres for wheels. *Lond.* 1842. 8vo.
- Preparation and Spinning Machines. *Lond.* 1838. 8vo.
- Screwing stocks, taps, dies, machinery, &c., for cutting and working in metals. *Lond.* 1841. 8vo.
- Specification of Furnaces and Boilers ; machinery for the manufacture and working of metals. *Lond.* 1843. 8vo.
- Specification of Improvements in breechloading Fire-arms. *Lond.* 1813. 8vo.
- Steam-engines and boilers. *Lond.* 1834. 8vo.
- Steam-engines, propulsion of carriages, vessels, *etc.* *Lond.* 1843. 8vo.

- BODMER, R. On the Propulsion of Vessels by the Screw. *Tract. folio. vol. 6.* [1850?] folio.
- Specification of Improvements in Safety-valves for Steam-boilers. *Lond. 1857. 8vo.*
- BODY, M. Aide-mémoire portatif de campagne pour l'emploi des chemins de fer en temps de guerre. *Liège, 1870. 12mo.*
- BOEMCHES, F. Bericht über die wichtigsten Hafenplätze der Levante in kommerzieller und maritimer Beziehung. *Tract. 8vo. vol. 348.* *Liepzg, 1882. 8vo.*
- Der internationale Congress für die Nutzbarmachung der fließenden Gewässer (Paris 1889) in Vergleiche zu den Binnenschiffahrts-Congressen von Brüssel, Wien und Frankfurt a.M. *Tract. 8vo. vol. 494.* *Wien, 1890. 8vo.*
- Die Oesterreichisch-Ungarische Ausstellung in Triest für Industrie und Landwirthschaft. *Tract. 8vo. vol. 355.* *Wien, 1882. 8vo.*
- Mémoire sur le port de Trieste. *Tract. 8vo. vol. 348.* *Paris, 1881. 8vo.*
- Neuer Hafen von Triest. Petroleum-Bassin. *Tract. folio. vol. 43.* *Wien, 1882. folio.*
- Note sur le nouveau port de commerce à Trieste. *Tract. 8vo. vol. 280.* [Paris,] 1877. 8vo.
- Note sur le nouveau port de Trieste, etc. *Tract. 8vo. vol. 406.* *Paris, 1885. 8vo.*
- Die Ausstellung des französischen Bautenministeriums im Jahre 1878. *Tract. 8vo. vol. 311.* *Wien, 1879. 8vo.*
- BOERNER, Dr. P. Hygienischer Führer durch Berlin. *Berlin, 1882. 8vo.*
- BOGART, J. Methods of Traction on the Erie Canal; with notes on the transportation of coal on the Ohio River. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.
- BOHN, C. Die Landmessung: ein Lehr- und Handbuch, etc. *Berlin, 1886. 8vo.*
- BOHN, G. Address as President of the Hull and District Institution of Engineers, etc. *Tract. 8vo. vol. 489.* *Hull, 1888. 8vo.*
- Specification of Works to be constructed . . . at Great Driffield, Yorkshire, for the Sewerage, etc. 1878. See OLDHAM, J., and BOHN, G.
- BOHN, H. G. A Catalogue of Books. *Lond. 1841. 8vo.*
- — [Another edition.] *Lond. 1847. 8vo.*
- BOHNENBERGER, G. C. Beschreibung einer . . . Elektrisir-maschine. 6 pt. in 2 vols. *Stuttgart, 1784–1791. 8vo.*
- Beschreibung unterschiedlicher Elektrizitätsverdoppler von einer neuen Einrichtung, etc. *Stuttgart, 1798. 8vo.*
- Beyträge zur theoretischen und praktischen Elektrizitätslehre. Stück 1–4. *Stuttgart, 1793–1795. 8vo.*
- BOILEAU, A. H. E. Outlines of a Series of Lectures on Iron Suspension Bridges, etc. *Calcutta, 1842. 8vo.*

- BOILEAU, J. T. A Collection of Tables, astronomical, meteorological, and magnetical, *etc.* *Tract.* 4to. vol. 79. *Umballa*, 1850. 4to.
- A new and complete set of Traverse Tables, showing the differences of latitude, and the departures to every minute of the quadrant, and to five places of decimals, *etc.* *Lond.* 1839. 8vo.
- Report on the practicability and expense of a plan proposed for constructing Docks at Diamond Harbour, on the River Hooghly . . . and for uniting them with Calcutta by a railroad. *Tract.* 8vo. vol. 382. *Lond.* 1839. 8vo.
- BOILEAU, P. Notions nouvelles d'hydraulique concernant principalement les tuyaux de conduite, les canaux et les rivières. *Tract.* 8vo. vol. 291. *Cherbourg*, 1878. 8vo.
- — [2nd edition.] *Versailles*, 1881. 4to.
- Traité de la mesure des eaux courantes, *etc.* *Paris*, 1854. 4to.
- BOILEAU, W. Lectures on the penetration of Projectiles into earthen Parapets. *Tract.* 8vo. vol. 243. *Chatham*, 1874. 8vo.
- BOIX, E. Estabilidad de las construcciones de mampostería. Texto y atlas. 2 vols. *Madrid*, 1889. 8vo.
- BOIX, V. Memoria histórica de la inundacion de la ribera de Valencia en los dias 4 y 5 Noviembre de 1864. *Valencia*, 1865. 8vo.
- BOLAS, T. Cantor Lectures on the application of Photography to the production of printing surfaces and pictures in pigment, *etc.* *Lond.* 1878. 8vo.
- Cantor Lectures on the recent improvements in photo-mechanical printing methods, *etc.* *Lond.* 1884. 8vo.
- BOLITHO, —, *Capt.* Continuous Automatic Brakes. 1879. 4to.
See SANDERS, R. D., and BOLITHO, —, Capt.
- BOLLAND, S. The Iron-founder: a . . . treatise on the art of Moulding. *New York*, 1893. 8vo.
- BOLLER, A. P. New York, Providence and Boston Railroad. Report . . . upon the construction of the Thames River Bridge and approaches, at New London, Conn. *New York*, 1890. folio.
- Practical treatise on the Construction of Iron Highway Bridges. *New York*, 1876. 8vo.
- BOLLMAN, W. Iron Suspension and Trussed Bridge designed . . . for the Baltimore and Ohio Railroad Company at Harper's Ferry, *etc.* *Tract.* 4to. vol. 42. *Baltimore*, 1852. 4to.
- BOLOGNA. Notizie storiche intorno all' origine, ed alla formazione de canale naviglio di Bologna. Raccolte da G. B. M. *Tract.* 4to. vol. 8. *Bologna*, 1825. 4to.
- [*Circolo tecnico.*] Atti. *Bologna*, 1877. 8vo.
- [*R. Scuola d'Applicazione per gli Ingegneri.*] Notizie concernenti la Scuola e monografie dei gabinetti. 2 vols. *Bologna*, 1881–88. 8vo.

BOLSTRA, M. Antwoord . . . op de tweeledige vraag van de Hollandse Maatschappye der Wetenschappen, voorgesteld in den Jaare 1753, namelyk: In welke hoeveelheid zyn de Nederlandsche rivieren sedert den aanvang deezer eeuw verزند? *etc.* *Tract.* 8vo. vol. 162. 1754. 8vo.

BOLTON. Act for improving the town of Bolton.

Lond. 1847. folio.

— [Public Free Library.] Thirteenth Annual Report. *Tract.* 8vo. vol. 414. *Bolton*, 1883. 8vo.

— [Water-Supply.] An Act for more effectually supplying Water to the Inhabitants of the town of Bolton, *etc.* *Lond.* 1846. folio.

BOLTON, Sir F. London Water Supply. *Lond.* 1884. 8vo.

— New edition . . . with a copious index by Philip A. Scratchley, M.A. *Lond.* 1888. 8vo.

— A Telegraphic Dictionary of the English Language, *etc.* *Lond.* 1871. 4to.

BOLTON, Sir F., and FRANKLIN, P. Lectures on the Collection, Storage, Purification and Examination of Water. *Tract.* folio. vol. 38. *Lond.* 1886. folio.

BOLTON, Sir F., and SIVEWRIGHT, J. The Telegraph Pocket-book Diary and Telegraph Code for 1878. *Lond.* 1878. 12mo.

BOLTON, H. C. A select Bibliography of Chemistry, 1492–1892. [Smithsonian Miscellaneous Collections. Vol. 38.] *Washington*, 1893. 8vo.

BOLTON, R. A Central Engineering Exchange in London. *Tract.* 8vo. vol. 508. *Lond.* 1892. 8vo.

— Electric Cranes, *etc.* *Lond.* 1891. 8vo.

— The Engineering Exchange, *etc.* *Lond.* 1892. 8vo.

— Percussive Rock-drilling, *etc.* *Lond.* 1890. 8vo.

— Recent Improvements in the Circulation of Water in Steam Boilers. *Lond.* 1891. 8vo.

— The Square Drilling Machine and its uses, *etc.* *Lond.* 1892. 8vo.

BOMANJI SORABJI, Khan Bahadur. Ueber einige neue Ethane. *Tract.* 8vo. vol. 395. *Würzburg*, 1884. 8vo.

BOMBAY. See INDIA.—BOMBAY.

BOMMART, A. Rapport sur les travaux publics représentés à l'Exposition Universelle de Londres de 1862. *Tract.* 8vo. vol. 366. *Paris*, 1863. 8vo.

BOMPIANI, G., and LUIGI, L. Methods employed in Italy for rendering Canals water-tight. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.

— Relazione sui lavori del quarto congresso internazionale di navigazione interna tenuto a Manchester nel 1890. *Roma*, 1891. 8vo.

- BOMPIANI, G., and LUIGGI, L.—*continued*. Su alcune macchine per la preparazione del calcestruzzo proposte pei lavori de bacini di raddobbo nel Porto di Genova. *Tract. 8vo. vol. 486.*
Roma, 1889. 8vo.
- BOND, G. M. Effect of internal Strains in hardened Steel, practically considered. *Tract. 8vo. vol. 517.* *Salem, 1890. 8vo.*
 (From the Proceedings of the American Association.)
- Report on Wool Manufacture in all its branches. [*U.S.A. 10th Census. Vol. 2.*] *Washington, 1883. 4to.*
- Standards of Length and practical application . . . Edited by G. M. Bond. *Hartford, Conn. 1887. 8vo.*
- Standards of Length and their Subdivision.—Standards of Length as applied to Gauge dimensions. Two lectures, etc. *Tract. 8vo. vol. 449.* *Hartford, Conn., 1887. 8vo.*
- BOND, H. The art of Apparelling and Fitting of any Ship with masts, yards, and cordage, etc. *Tract. 8vo. vol. 72.*
Lond. 1655. 8vo.
- BOND, R. The Handbook of the Telegraph; being a manual of telegraphy, etc. *Lond. 1864. 8vo.*
- BONE, J. H. A. Petroleum and Petroleum Wells. . . . 2nd edition . . . enlarged. *Philadelphia, 1865. 12mo.*
- BONINI, F. M. Il Tevere incatenato, ovéro l'arte di frenar l'acque correnti. *Roma, 1663. 8vo.*
- BONNA, A. Assainissement des villes. Traitement des eaux d'égout par les procédés agricoles. [1890?] folio.
- BONNAMI, H. Fabrication et controle des chaux hydrauliques et des ciments : théorie et pratique, etc. *Paris, 1888. 8vo.*
- Manuel de l'opérateur au tachéomètre, etc. *Paris, 1883. 8vo.*
- BONNEFOUX, P. M. G. DE, Baron, and PARIS, F. E. Dictionnaire de marine à voiles et à vapeur. 2^e édition. 2 vols. *Paris, [1848–51.] 8vo.*
- BONNEY, T. G. The Year-book of Science; edited for 1891 by T. G. Bonney. *Lond. 1892. 8vo.*
- BONNIN, J. Travaux d'achèvement de la digue de Cherbourg de 1830 à 1853 : précédés d'une introduction historique par A. E. Lamblardie. (Atlas of plates.) *Paris, 1857. 4to.*
- BONNIN, R. Agrandissement du Victoria Harbour à Saint Hélier, Jersey : esquisse d'un projet pour la construction d'un break-water, etc. *Tract. 8vo. vol. 142.* *Evreux, 1863. 8vo.*
- Étude sur la stabilité des routes en maçonnerie. *Tract. folio. vol. 18.* *Evreux, 1875. folio.*
- Étude sur les ponts métalliques. *Tract. folio. vol. 22.* *Evreux, 1875. folio.*
- Exploitation et organisation d'un chemin de fer anglais, par G. Findlay. Compte rendu par R. Bonnin. *Tract. folio. vol. 45.* [Paris, 1890.] folio.

- BONNIN, R.—*continued*. Freins continus pour chemins de fer. Frein à vide automatique, *etc.* Paris, 1888. 8vo.
- Note sur la construction d'une passerelle provisoire en bois établie à Andé, sur la Seine. Evreux, 1873. 4to.
- Sablière à vapeur pour augmenter l'adhérence des roues de locomotives. Tract. 8vo. vol. 458. Paris, 1888. 8vo.
- Valve automatique destinée à mettre en concordance l'action combinée des freins à vide automatiques d'un train et des freins à vapeur de la locomotive. Tract. 4to. vol. 111. [Paris,] 1888. 4to.
- BONELLI, J. Projet d'un chemin de fer international à faibles pentes à travers les Appennins et les Alpes par Mont Blanc. Tract. 8vo. vol. 320. Turin, 1880. 8vo.
- BONOLIS, A. Del cuneo e del suo lavoro utile. Tract. 8vo. vol. 245. [Napoli,] 1872. 8vo.
- Descrizione del gonoclinometro inventato dal Sig. S. Garguilo, *etc.* Tract. 8vo. vol. 267. [Napoli, 1875 ?] 8vo.
- Determinazione grafica de' momenti inflettenti sugli appoggi posti a differente livello d'una trave continua composta di parecchie travate. Tract. 4to. vol. 81. 1878. 4to.
- Nuove costruzione per la determinazione interamente grafica dei momenti inflettenti sugli appoggi di una travatura continua sopraccaricata in un modo qualunque. Tract. 4to. vol. 109. Torino, 1881. 4to.
- Sulla materiale struttura de' moli. Tract. 8vo. vol. 251. Roma, 1875. 8vo.
- Trattato elementare di topographia. Napoli, 1876. 12mo.
- BONOLIS, A., and MAZZA, F. Delle ruote idrauliche ad asse verticale e più specialmente delli ritrecini. Tract. 8vo. vol. 296. [1878.] 8vo.
- BONOMI, J. The Proportions of the Human Figure. Tract. 8vo. vol. 115. Lond. 1856. 8vo.
- BONTEMPS, C. Les systèmes télégraphiques aériens électriques pneumatiques. Paris, 1876. 8vo.
- BONWICK, J. The Resources of Queensland. Tract. 8vo. vol. 398. Lond. 1883. 8vo.
- BOOBBYER, P. The Meteorology of Nottingham, *etc.* 1892. folio. See BROWN, ARTHUR, and BOOBBYER, P.
- BOOKER, T. W. A speech delivered . . . at the annual meeting of the Royal British Association, on the mineral productions of South Wales. Tract. 8vo. vol. 395. Cardiff, 1848. 8vo.
- BOOLE, G. A Treatise on Differential Equations. 2nd edition, revised. Cambridge and Lond. 1865. 8vo.
- BOOTH, H. An account of the Liverpool and Manchester Railway, . . . 2nd edition. Tract. 8vo. vol. 60. Liverpool, 1831. 8vo.
- Observations on the comparative Resistance offered to bodies moving through water at different velocities. Tract. 8vo. vol. 173. Liverpool, 1856. 8vo.

- BOOTH, Rev. J. A new Method of converting Rectilinear into Rotatory Motion, applied to the steam engine. *Tract.* 8vo. vol. 189. *Liverpool*, 1845. 8vo.
- On a new class of properties of Lines and Surfaces of the second order. *Tract.* 8vo. vol. 189. [*Lond.* 1843.] 8vo.
- On the application of a new analytic Method to the theory of curves and curved surfaces. *Tract.* 8vo. vol. 189. *Lond.* 1843. 8vo.
- On the Rectification and Quadrature of the spherical Ellipse. *Tract.* 8vo. vol. 189. *Lond.* 1844. 8vo.
- BOOTH, M. L. Marble-workers' Manual. *Philadelphia*, 1876. 8vo.
- BOOTH, W. F. Plans and Map of the Manchester Ship Canal, etc. *Tract.* folio. vol. 43. *Manchester*, 1884. folio.
- BOOTH, W. H. The Hammer-blow in Locomotives. *Tract.* 8vo. vol. 435. 1887. 8vo.
- BOOTHBY, J. Adelaide Almanac and Directory for South Australia, 1883. *Adelaide*, 1883. 8vo.
- BORCHERS, W. Elektro-metallurgie: die Gewinnung der Metalle unter Vermittlung des elektrischen Stromes. *Braunschweig*, 1891. 8vo.
- BORDE, P. L'isthme de Suez. *Paris*, 1870. 8vo.
- BORDEAUX. Notice sur le pont de Bordeaux. *Tract.* 4to. vol. 58. [*Bordeaux*, 1822.] 8vo.
- *Exposition Annuelle des produits des arts et de l'industrie.* Rapport du jury sur les produits de l'industrie. *Tract.* 8vo. vol. 68. *Bordeaux*, 1827. 8vo.
- Séance publique. Distribution des prix. *Tract.* 8vo. vol. 57. *Bordeaux*, 1828. 8vo.
- BORDES, J. P. DE, and OTHERS. Het leven en de werken van den Generaal-Majoor Dr. J. P. Delprat. *Tract.* 4to. vol. 105. 1882-83. 4to.
- BORDES, L. G. Agence générale sud-américaine de brevets d'invention et marques de fabrique pour toute l'Amérique latine. *Tract.* 8vo. vol. 484. *Paris*, 1889. 8vo.
- BOREL, P. Conférence sur l'achèvement du canal de Suez. [*Suez Canal Tracts.* Vol. 2.] *Paris*, 1868. 8vo.
- Conférence . . . sur les travaux d'exécution du canal de Suez. [*Suez Canal Tracts.* Vol. 2.] *Paris*, 1867. 8vo.
- BORGATTI, E. Sull' impianto di apparecchi idraulici nel porto di Genova. 1888. See LUIGGI, L., and BORGATTI, E.
- Hydraulic Installations in the Port of Genoa. 1893. See LUIGGI, L., and BORGATTI, E.
- BORGNAANA, C. Dell' acqua di Q. Marcio Ré e del suo acquedotto. *Tract.* 4to. vol. 76. *Roma*, 1861. 4to.

- BOBGNIS, J. A. *Traité complet de mécanique appliquée aux arts.*
8 vols. *Paris*, 1818–20. 4to.
- *Théorie de la mécanique usuelle, ou introduction à l'étude de la mécanique appliquée aux arts.* *Paris*, 1821. 4to.
- BORGHT, R. VAN DER. *Waterways and Railroads in the transport trade of the Rhine Basin.* [*5th Int. Congr. Int. Nav.*]
[*Paris*, 1892.] 8vo.
- BORGIO, C. *Analisi ed esame ragionato dell' arte della fortificazione e difesa delle piazze, etc.* *Venezia*, 1777. 4to.
- BORIAS, E. *Traité théorique et pratique de la fabrication du gaz, etc.* *Paris*, 1890. 8vo.
- BORMANN, C., *Maj.-Gen.* *Das preussische System der gezogenen Feldgeschütze in Belgien und der Zeitzündler der Armstrong'schen Granatkartätsche.* *Tract.* 8vo. vol. 367. *Darmstadt*, 1861. 8vo.
- *The Shrapnel Shell in England and in Belgium . . .* 2nd edition. *Brussels*, 1862. 8vo.
- BORNEMANN, K. R. *Hydrometrie oder praktische Anleitung zum Wassermessen, nebst einem Anhang über die Vertheilung des Wassers.* *Freiburg*, 1849. 8vo.
- BORNEO. N.-W. *Coast of Borneo. Observations on the Physical and Political Geography of the districts lying between Gaya Bay and the Tampasuk River.* *Lond.* 1859. folio.
- *Platen der fossiele mollusken uit de eoceene vorming van Borneo.* [*Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië.*]
Amsterdam, 1877. 8vo.
- BORNS, G. M. *Tables of Metric Measures and their English equivalents.* *Lond.* 1879. 8vo.
- BÖRNSTEIN, R. *Physikalisch-chemische Tabellen.* 1883. *See* LANDOLT, H., and BÖRNSTEIN, R.
- BORODINE, A. DE. *Note sur la question des primes au personnel.* *Tract.* 8vo. vol. 482. *Paris*, 1889. 8vo.
- *Rapport de la commission chargée de l'essai de la locomotive à grande vitesse, système compound-tandem, des chemins de fer Sud-Ouest Russes.* *Tract.* 8vo. vol. 531. *Paris*, 1892. 8vo.
(From *Mémoires de la Société des Ingénieurs Civils de France.*)
- BORREGON, D. A. *Indice de los artículos publicados en los veinte tomos de la Revista de Obras Públicas.* *Madrid*, 1875. 8vo.
- BORRIE, P. *Companion to the improved Log-book for steam vessels, containing a full explanation of the method of keeping the log, etc.* *Lond.* 1849. 4to.
- BORRIES, A. von. *Ueber Compound-Lokomotiven.* *Dritte Auflage.* *Tract.* 8vo. vol. 458. *Berlin*, 1886. 8vo.
- BORROWSTOWNNESS CANAL. *Amended Act.* *Lond.* 1783. folio.
- BORTHWICK, M. A. *Report on the proposed Railway in the province of Pernambuco, Brazil.* *Tract.* 8vo. vol. 104.
Lond. [1853.] 8vo.

- BOSC, E. *Étude sur les chaussées dans les grandes villes. Tract.*
8vo. vol. 270. *Paris, 1873. 8vo.*
- BOSC, T. *Traité complet de la tourbe. Paris, 1870. 8vo.*
- BOSSOLI, C. *Views of the picturesque scenery on the railway between Turin and Genoa. Lond. 1853. folio.*
- BOSSUT, J. *Traité élémentaire d'hydrodynamique. 2 vols. Paris, 1771. 8vo.*
- *Traité théorique et expérimental d'hydrodynamique. Nouvelle édition. 2 vols. Paris, 1796. 8vo.*
- BOSSUT, J., and VIALLET, G. *A general History of Mathematics from the earliest times to the middle of the eighteenth century. Translated from the French, etc. Lond. 1803. 8vo.*
- *Recherches sur la construction la plus avantageuse des digues. Nouvelle édition. Tract. 4to. vol. 51. Paris, [1790?] 4to.*
- BOSSUYT *Canal de Bossuyt à Courtray, et projets connexes. Bruxelles, 1838. folio.*
- BOSTOCK, J. *An account of the history and present state of Galvanism. Lond. 1818. 8vo.*
- BOSTON, *Lincs.* *An Act for better supplying with Water the Town and Environs of Boston, etc. Lond. 1846. folio.*
- *Act for improving Boston Harbour. Lond. 1812. folio.*
- *Copies of reports of engineers made to the Boston Harbour Commissioners on the improvement of Boston Haven and the outfall; with other papers, etc., 1800–1877. Tract. 8vo. vol. 277. Boston, 1877. 8vo.*
- BOSTON, *Mass.*—*[City Engineer.] Annual Report . . . 1876, (1877, etc.). Boston, 1876, etc. 8vo.*
- *[Library.] Index to the Catalogue of a portion of the Public Library . . . arranged in the Lower Hall. Boston, 1858. 8vo.*
- *Index to the Catalogue of books in the Upper Hall of the Public Library. Boston, 1861. 8vo.*
- *Index to the Catalogue of books in the Bates Hall of the Public Library. 1st Supplement. Boston, 1866. 8vo.*
- *Proceedings at the dedication of the Library . . . Boston, Jan. 1st, 1858. Boston, 1858. 8vo.*
- *Seventh, (8th and 41st) annual report of the Trustees. Boston, 1859–93. 8vo.*
- *[Parks.] Department of Parks. Annual Reports of the Board of Commissioners. Boston, 1888. 8vo.*
- *[Railroads.] Report of the Commission appointed by the President of the West End Street Railroad Company to examine into the merits of Fenders for use on the Electric Cars of the . . . Company. Tract. 8vo. vol. 515. Boston, 1892. 8vo.*

- BOSTON, *Mass.*—*continued.*—[*Sewerage.*] Report on the Sewerage of Boston, *etc.* *Tract. 8vo. vol. 297.* *Boston, 1876. 8vo.*
- Report of the joint special Committee on improved Sewerage. *Tract. 8vo. vol. 297.* *Boston, 1871. 8vo.*
- [*Survey.*] Annual report of the Board of Survey, for the year 1893, (1894, *etc.*) *Boston, 1894, etc. 8vo.*
- [*Water Supply.*] Report of the Water-Meter Testing Commission. *Boston, 1888. obl. 8vo.*
- Thirteenth annual Report of the Water Board. 1888. *Boston, 1889. 8vo.*
- Specifications relating to Boston Waterworks. *Tract. folio. vol. 9.* *Boston, 1847–50. folio.*
- Specifications and Contract for High-Service Pumping Engine. No. 3. *Tract. 4to. vol. 121.* *Boston, 1892. 4to.*
- BOSTON AND PROVIDENCE RAILROAD. Annual reports of the directors, with that of the agent and engineer. *Tract. 8vo. vol. 2.* *Boston, 1833–34. 8vo.*
- BOSTON MANUFACTURERS MUTUAL FIRE INSURANCE COMPANY. Report upon coverings for steam-pipes by Prof. J. M. Ordway; also a preliminary report on the lubrication of heavy bearings. *Tract. 4to. vol. 108. Boston, Mass., 1883. 4to.*
- Papers relating to American Mill Construction. *Tracts. 4to. vol. 113.* *Boston, Mass., 1890. 4to.*
- BOSTON SOCIETY OF CIVIL ENGINEERS. Report of Committee on Weights and Measures, *etc.* *Tract. 8vo. vol. 471.* *New York, 1888. 8vo.*
- BOSWALL, G. *See* GLASS, R. A. *Glass v. Boswall. 1861.*
- BOSWALL, Capt. J. D., *R.N.* Letter to the proprietors of steam-vessels connected with the Firth of Forth, and others interested in the trade carried on by steam-navigation. With an Appendix. *Tract. 4to. vol. 55.* *Edinburgh, 1831. 4to.*
- BOSWELL, G. A Treatise on Watering Meadows, *etc.* 2nd edition. *Lond. 1790. 8vo.*
- BOSWELL, S. On some details in the construction of modern Lancashire Boilers. *Tract. 8vo. vol. 529.* [*Lond. 1891.*] *8vo.*
- BOSWORTH, Rev. J. A compendious Anglo-Saxon and English Dictionary. *Lond. 1876. 8vo.*
- BOTFIELD, B. Catalogue of Pictures at Norton Hall. *Lond. 1848. 8vo.*
- Journal of a Tour through the Highlands of Scotland during the summer of 1829. *Edinburgh, 1830. 8vo.*
- BOTLEY, C. E. Notes on a journey to Tunis. *Tract. 8vo. vol. 310.* *Lond. [1879.] 8vo.*
- BOTT, W. E. Letter to Lord Campbell, suggesting alterations in the law of Rating Railways, *etc.* *Tract. 8vo. vol. 116.* *Lond. 1856. 8vo.*

- BÖTTCHER, E. Eiserner Oberbau für Strassenbahnen. *Tract.* 8vo. vol. 301. *Bremen*, 1878. 8vo.
- BOTTOMLEY, J. T. Electrometers. [Science Lectures at South Kensington, Vol. I.] *Lond.* 1878. 8vo.
- BOTTONE, S. On the propagation of Motion in Waves and Tides. *Tract. folio.* vol. 26. [*Lond.*] 1878. folio.
- BOUCH, T. Eden Valley Railway. Station Plans, &c. *Edinburgh*, [] folio.
- BOUCHARLAT, J. L. Elémens de mécanique. 2^e édition. *Paris*, 1827. 8vo.
- BOUCHERIE, Dr. M. A. Translation of a report upon an Essay concerning the Preservation of Wood, by M. A. Boucherie. *Tract.* 8vo. vol. 72. *Lond.* 1841. 8vo.
- BOUCHES-DU-RHONE, *Department of the.*—*Commission de Météorologie.* Bulletin annuel. *Marseille*, 1889–91. 4to.
- BOUCHETTE, J. Table of trigonometrical solutions of right angle plane triangles, computed on the logarithmic number 2,000,000. *Tract.* 8vo. vol. 335. *Montreal*, 1827. 8vo.
- BOUDIN, J. C. M. Études sur l'eau en général et sur les eaux potables en particulier. *Tract.* 8vo. vol. 471. *Paris*, 1854. 8vo.
- BOUDSOT, A. A. Considérations théoriques au point de vue de l'application sur l'établissement des ponts suspendus, des ponts en métal, en pierre, en bois. (Atlas of plates.) *Paris*, 1853. 4to.
- BOUFFET, H. Notice sur les canaux de submersion du département de l'Aude. *Tract.* 8vo. vol. 477. *Carcassonne*, 1889. 8vo.
- BOUGUER, P. Traité du navire, de sa construction, et de ses mouvemens. *Paris*, 1746. 4to.
- BOUHY, V. De la houille, et en particulier des diverses espèces de houille exploitée au couchant de Mons, en Hainaut (Belgique). *Mons*, 1855. 8vo.
- La fonte, le fer, l'acier à l'Exposition universelle, *Paris*, 1878. *Bruzelles*, 1879. 8vo.
- Notice sur la fabrication du plomb au four à réverbère à la Société de la nouvelle montagne à Engis (Belgique). *Tract.* 8vo. vol. 255. *Paris*, 1870. 8vo.
- Production et consommation de la houille. *Tract.* 8vo. vol. 253. *Liège*, 1875. 8vo.
- BOUILLET, —. Traité des moyens de rendre les rivières navigables, etc. 1696. See ANONYMOUS.
- BOULANGER, J. Sur l'emploi de l'électricité pour la transmission du travail à distance. *Paris*, 1887. 8vo.
- Sur les progrès de la science électrique et les nouvelles machines d'induction. *Paris*, 1885. 8vo.
- BOULARD, J. Production et applications de l'électricité. *Paris*, 1882. 8vo.

BOULÉ, A. Le barrage de Suresnes et la canalisation de la Seine entre Paris et Rouen. (Exposition universelle de 1889. Congrès international de l'utilisation des eaux fluviales.) *Paris*, 1889. 8vo.

— Le but et l'utilité de la canalisation des fleuves.

Paris, 1888. 8vo.

— Paris port de mer. Mémoires sur les barrages mobiles à grande chute. Notice sur la nouvelle passe navigable de Port-à-l'Anglais. Mémoire sur un nouveau système de barrage mobile, fermé par des vannes et des fermettes. *Tract. 8vo. vol. 305. Paris*, 1876. 8vo.

BOULIN, P. Manuel pratique du fabricant de sucre. Sucre de betteraves et sucre de cannes. *Paris*, 1889. 8vo.

BOULNOIS, H. P. Dirty Dust-bins and sloppy streets.

Lond. 1881. 8vo.

— Inaugural Address [as President of the] Liverpool Engineering Society. *Tract. 8vo. vol. 522. Liverpool*, 1893. 8vo.

— The Municipal and Sanitary Engineer's Handbook.

Lond. 1883. 8vo.

— — 2nd edition.

Lond. 1892. 8vo.

— Municipal Engineering.

[1891?] folio.

— Practical hints on taking a House.

Lond. 1885. 8vo.

— Report on cleansing the rising mains of Exeter. *Tract. 8vo. vol. 350. Exeter*, 1882. 8vo.

— Sewer Ventilation: or, a new and improved system for the disposal of noxious gases generated in sewers and drains. *Tract. 8vo. vol. 325. Exeter*, 1880. 8vo.

BOULOGNE. Rade et port de Boulogne, inauguré . . . 1889.

Paris, [1889.] 8vo.

— Rapports faites à la Chambre de commerce de Boulogne-sur-Mer par ses commissaires sur un projet de création par une compagnie étrangère, d'un nouveau port au sud du cap Grisnez.

Boulogne-sur-Mer, 1869. 4to.

BOULT, J. The Deterioration of the Mersey. *Tract. 8vo. vol. 239.*

Liverpool, 1874. 8vo.

— Notes on the phenomena of Tidal Rivers, illustrated chiefly from those of the Mersey. *Tract. 8vo. vol. 528. 1891.* 8vo.

— On customary or local measures of land in the British Isles. *Tract. 8vo. vol. 220. Liverpool*, 1871. 8vo.

— On the alleged Submarine Forests on the shores of Liverpool bay and the river Mersey. *Tract. 8vo. vol. 142. Liverpool*, 1865. 8vo.

— Further observations on the alleged Submarine Forests on the shores of Liverpool bay and the river Mersey: in reply to Dr. Hume's communication of July 10, 1865. *Tract. 8vo. vol. 156. Liverpool*, 1866. 8vo.

— Particulars of Wells and Boreholes in the new red sandstone, etc. *Tract. 4to. vol. 114. [1880?] 4to.*

- BOULT, J.—*continued*. Speculations on the former Topography of Liverpool and the neighbourhood. 4 parts. *Tract. 8vo. vols. 211 and 233.* *Liverpool, 1866–73. 8vo.*
- Tides and Tidal Scour: read before the Liverpool Engineering Society, November 9th, 1881. *Tract. 8vo. vol. 471.* *Liverpool, 1881. 8vo.*
- BOULT, W. S. The comprehensive International Wire Table. *Liverpool, 1890. 8vo.*
- BOULTBEE, J. W. Report on Artesian Boring. [Official.] *Sydney, 1891. folio.*
- BOULTON, M. P. W. Remarks concerning certain Pictures supposed to be Photographs of early date. *Tract. 8vo. vol. 155.* *Lond. 1865. 8vo.*
- BOULTON, S. B. An improvement in the process for Creosoting Timber. *Tract. 8vo. vol. 336.* *Lond. 1882. 8vo.*
- [Another edition.] *Tract. 8vo. vol. 394. Lond. 1885. 8vo.*
- The Russian Empire, its origin and development. *Lond. 1882. 8vo.*
- BOULVIN, J. Note sur le phare flottant “Wandelaar.” *Tract. 8vo. vol. 436.* *Bruxelles, 1884. 8vo.*
- Nouveau diagramme des propriétés de la vapeur d’eau, etc. *Tract. 8vo. vol. 517.* *Gand, 1893. 8vo.*
- BOUNICEAU, P. Le canal interocéanique (Nicaragua et Panama). *Tract. 8vo. vol. 309.* *Angoulême, 1879. 8vo.*
- De Paris au Cap; ou le chemin de fer transsaharien. *Tract. 8vo. vol. 304.* *Paris, 1883. 8vo.*
- Étude sur la navigation des rivières à marées et la conquête des lais et relais de leur embouchure. *Paris, 1845. 8vo.*
- Études et notions sur les constructions à la mer. (Atlas of plates.) *Paris, 1866. 8vo.*
- Note et expériences sur la torsion des bois. *Tract. 8vo. vol. 136.* [Paris, 1861.] *8vo.*
- BOUNICEAU, P., and BELLOT, —. Port du Havre. Construction d’une forme-sèche. Devis et cahier des charges. *Tract. 4to.* *Havre, 1867. 4to.*
- BOUQUET DE LA GRYE, A. Étude sur les nivellements de précision. *Tract. 8vo. vol. 331.* *Paris, 1879. 8vo.*
- Exposé du projet de Paris port de mer. *Vienne, 1886. 8vo.*
- BOUR, E. Cours de mécanique et machines professé à l’École Polytechnique. *Paris, 1868. 8vo.*
- Thèse de mécanique céleste—Mémoire sur le problème des trois corps. Thèse d’astronomie—Sur l’attraction qu’exercerait une planète si l’on supposait sa masse répartie sur chaque élément de son orbite proportionnellement au temps employé à la parcourir. (Présentées à la faculté des sciences de Paris pour obtenir le grade de docteur ès sciences.) *Tract. 4to. vol. 80. Paris, 1885. 4to.*

- BOURCHIER, *Lady*. Memoir of the life of Admiral Sir E. Codrington. 2 vols. *Lond.* 1873. 8vo.
- BOURDELLES, O. The Luminous Power of Lighthouse Apparatus. [2nd Int. Mar. Congr.] *Lond.* 1893. 8vo.
- BOURDON, E. Appareils imaginés et construits par E. Bourdon. *Tract.* 8vo. vol. 137. *Saint-Nicolas*, 1862. 8vo.
- BOURGOGNE CANAL. Avant-projet d'établissement d'un touage électrique dans le souterrain de Pouilly. Rapport de la commission d'examen. [5th Int. Congr. Int. Nav.] *Paris*, 1892. 8vo.
- BOURGOIS, J. Mémoire sur la résistance de l'eau au mouvement des corps et particulièrement des bâtiments de mer. *Tract.* 4to. vol. 83. *Paris*, [1860.] 4to.
- Recherches théoriques et expérimentales sur les propulseurs hélicoïdes. *Tract.* 4to. vol. 85. *Paris*, 1845. 4to.
- BOURN, D. A Treatise upon Wheel Carriages; shewing their present defects, with a plan and description of a new constructed waggon, etc. *Tract.* 8vo. vol. 211. *Lond.* 1763. 8vo.
- BOURNE, J. A Catechism of the Steam Engine, illustrative of the scientific principles upon which its operation depends, and the practical details of its structure, in its application to mines, mills, steam navigation, and railways, etc. New edition. *Lond.* 1876. 8vo.
- [Chinese edition.] 5 vols.
- Examples of Steam, Air, and Gas Engines; with an account of all the principal projects for the production of motive power from heat. *Lond.* 1878. 4to.
- Handbook of the Steam-engine, containing all the rules required for the right construction and management of engines of every class. . . . Constituting a key of the "Catechism of the steam-engine." *Lond.* 1865. 8vo.
- Indian River Navigation; illustrating the practicability of opening up some thousands of miles of river navigation in India, by the use of a new kind of steam vessel. *Tract.* 8vo. vol. 87. *Lond.* 1849. 8vo.
- Indian Works and English Engineers. A letter to His Grace the Duke of Argyll. *Tract.* 8vo. vol. 195. *Lond.* 1870. 8vo.
- An Introduction to the second edition of Railways in India, etc. *Tract.* 8vo. vol. 83. *Lond.* 1848. 8vo.
- Minute of the Affairs of the Oriental Inland Steam Company, Limited, and on Steam Navigation in the East. *Tract.* 8vo. vol. 141. *Lond.* 1863. 8vo.
- On the American system of Turret Ships. *Tract.* 4to. vol. 55. *Lond.* 1866. 4to.
- On the Proper Form of Ships. *Tract.* 4to. vol. 55. *Lond.* 1867. 4to.

- BOURNE, J.—*continued*. The Past and Future of Ships of War.
Tract. 8vo. vol. 280. Lond. 1877. 8vo.
- Recent Improvements in the Steam-engine, being a supplement to
the “Catechism of the steam engine.” New edition.
Lond. 1876. 8vo.
- The Steam-engine of the future. *Tract. 4to. vol. 82.*
Lond. 1879. 4to.
- A Treatise on the Screw Propeller, with various suggestions of
improvement. Appendix giving the dimensions of Screw Vessels
in H.M. Navy, and the results of experiments to ascertain the
relative efficiency of the screw as compared with the paddle-wheel.
Lond. 1852. 4to.
- — New edition. *Lond. 1867. 4to.*
- A Treatise on the Steam-engine, in its application to mines, mills,
steam navigation, and railways: by the Artizan Club. Edited by
J. Bourn. *Lond. 1846. 4to.*
- BOURNE, J. C. Drawings of the London and Birmingham Railway:
with an historical and descriptive account by John Britton.
Lond. 1839. folio.
- The History and Description of the Great Western Railway . .
accompanied by a plan and section of the railway, a geological
map, and by numerous views, *etc.* *Lond. 1846. folio.*
- BOURNE EAU. An Act for the Improvement of the Bourne Eau
Navigation. *Lond. 1781. folio.*
- BOURNEMOUTH. Explosion on board a steamer off Bournemouth.
Report by Col. Majendie. *Lond. 1884. folio.*
- BOURNEVILLE, —. Rapport fait [à la Chambre des Députés] au
nom de la commission chargée d'examiner le projet de loi ayant
pour objet l'utilisation agricole des eaux d'égouts de Paris et
l'assainissement de la Seine. *Paris, 1887. 4to.*
- BOURNS, C. The Principles and Practice of land, engineering,
trigonometrical, subterraneous, and marine Surveying: with an
appendix. *Lond. 1843. 8vo.*
- BOURSON, E. Les mines de Somorostro. *Paris, 1878. 8vo.*
- BOUSCAREN, G. Address as President of the Engineers' Club of
Cincinnati . . . December 19th, 1889. *Tract. 8vo. vol. 489.*
Cincinnati, 1889. 8vo.
- Covington Reservoir. Annual reports of consulting engineer.
Cincinnati, 1888, 91. 8vo.
- General Specifications for highway Bridges and Viaducts of iron
and steel. *Tract. folio. vol. 40. Cincinnati, 1887. folio.*
- — Second edition, revised, 1890. *Tract. folio. vol. 46.*
Cincinnati, 1890. folio.
- Instructions for laying out circular Curves with spiral approaches.
Tract. 8vo. vol. 331. [.] 8vo.

- BOUSCAREN, G.—*continued*. Report on the Progress of Work and Cost of Construction of the Cincinnati and Southern Railway. *Cincinnati*, 1878. 8vo.
- Report on the Progress of Work and Cost of completing and maintaining the Cincinnati Southern Railway. *Tract. 8vo. vol. 317. Cincinnati*, 1881. 8vo.
- Restoration of the Cable Ends of the Covington and Cincinnati Suspension Bridge. *Tract. 8vo. vol. 510. [New York,] 1893. 8vo.*
(From Trans. Am. Soc. C.E.)
- BOUSFIELD, W. R. The Patents, Designs and Trade Marks Act, 1883, *etc.* *Lond.* 1884. 8vo.
- BOUSMARD, H. J. B. DE. Essai général de fortification et d'attaque et défense des places, *etc.* 4 vols. (Atlas of plates.) *Berlin et Paris*, 1797–1804. 4to. and folio.
- BOUSQUET, G. Guide pratique d'architecture navale, à l'usage des capitaines de la marine du commerce, *etc.* *Tract. 8vo. vol. 387. Paris*, 1869. 12mo.
- BOUSQUET, T. B. G. DU. La nouvelle locomotive compound à quatre cylindres et à grande vitesse du Chemin de fer du Nord. *Tract. folio. vol. 48. Paris*, 1892. folio.
- BOUSSINESQ, J. Cours d'analyse infinitésimale . . . en vue de ses applications mécaniques et physiques. 2 vols. *Paris*, 1887–90. 8vo.
- Sur la poussée d'une masse de sable, à surface supérieure horizontale, contre une paroi verticale ou inclinée. *Tract. 4to. vol. 111. Paris*, 1884. 4to.
- Complément à de précédentes notes sur la poussée des terres. *Tract. 8vo. vol. 473. Lille*, 1884. 8vo.
- BOUSSINGAULT, J. B. L'économie rurale considérée dans ses rapports avec la chimie, la physique et la météorologie. 2 vols. *Paris*, 1843–44. 8vo.
- Essai de statique-chimique des êtres organisés. 1844. See DUMAS, J. B., and BOUSSINGAULT, J. B.
- Études sur la transformation de fer en acier par la cémentation. *Paris*, 1875. 8vo.
- Note sur la production, la constitution et les propriétés des aciers chromés. *Tract. 8vo. vol. 425. Paris*, 1878. 8vo.
- BOUSSON, A. Observations sur les chemins de fer d'Angleterre. 1845. See MICHELOT, P., and BOUSSON, A.
- BOUTIGNY, P. H. Études sur les corps à l'état sphéroïdal. 4^{me} édition. *Paris*, 1883. 8vo.
- Note sur un nouveau générateur à vapeur. *Tract. 4to. vol. 41. Paris [1830 ?] 4to.*
- BOUTMY, C. Les produits métallurgiques. (Exposition Internationale d'Amsterdam.) *Tract. 4to. vol. 94. Amsterdam*, 1884. 4to.

- BOUVIER, M. Reservoirs in the South of France. [5th Int. Congr. *Int. Nav.*] [Paris,] 1892. 8vo.
- BOÜYN, E. DE. Description de l'invention de voitures roulant sur des rails mobiles tournants et parcourant toutes les routes, les champs et les deserts. (Lithographed.) *Marseille*, 1874. 4to.
- BOVET, A. DE. Traction of Boats on Canalised Rivers, etc. 1892. See MOLINOS, L., and BOVET, A. DE.
- BOVEY, H. T. Applied Mechanics. 2 vols. *Montreal*, 1882–83. 8vo.
- Theory of Structures and Strength of Materials, etc. *New York*, 1893. 8vo.
- BOW, R. H. Economics of Construction, in relation to framed structures. *Lond.* 1873. 8vo.
- A Treatise on Bracing, with its application to bridges, etc. *Tract.* 8vo. vol. 394. *Edinburgh*, 1851. 8vo.
- BOWDEN, A. A Treatise on Dry Rot. . . . With methods of prevention and cure. Containing also an inquiry into the origin of fungi . . . and some account of those ships, which, from their remarkable durability, or other causes, form important features in the history of the British navy. *Lond.* 1815. 8vo.
- BOWDITCH, Rev. W. R. The Analysis, technical Valuation, Purification, and use of Coal Gas. *Lond.* 1867. 8vo.
- BOWEN, E. Coal and coal oil ; or, the geology of the earth, etc. *Philadelphia*, 1865. 8vo.
- The Coal Regions of Pennsylvania, etc. *Tract.* 8vo. vol. 233. *Pottsville*, 1848. 8vo.
- BOWEN RIVER, *Queensland*. Reports from the Engineer for Harbours and Rivers on Bowen Jetty and Mackay Improvements. *Brisbane*, 1877. folio.
- BOWEN RIVER COALFIELD. Report on the Bowen River Coalfield by R. L. Jack to . . . the Minister for Mines. *Brisbane*, 1879. folio.
- BOWEN RIVER RAILWAY. Survey. *Brisbane*, 1879. folio.
- BOWER, G. The Gas and Water Engineer's book of reference. *Tract.* 4to. vol. 84. *St. Neots*, [1880?] 4to.
- BOWER, G. S., and WEBB, W. The Law relating to Electric Lighting. 2nd edition. Being the Electric Lighting Acts, 1882 and 1888. *Lond.* 1889. 8vo.
- BOWER, J. Slate Quarries as an Investment, etc. *Tract.* 8vo. vol. 164. *Lond.* 1865. 8vo.
- BOWERBANK, J. S. On the Sea-beach Question. [Relating to the effect of the Tidal Wave on the Sea-Beach.] *Tract.* 8vo. vol. 409. [Hastings, 1870.] 8vo.
- BOWIE, A. J. The Destruction of the English Dam, Rudyard Reservoir, California. *Tract.* 8vo. vol. 375. *San Francisco*, 1858. 8vo.

- BOWIE, A. J.—*continued*. Hydraulic Mining in California.
Easton, 1878. 4to.
- Measurement and Flow of Water in Ditches. *Tract*. 8vo.
vol. 376. *San Francisco*, 1884. 8vo.
- A practical Treatise on Hydraulic Mining in California, with
description of the use and construction of ditches, flumes, wrought
iron pipes and dams, *etc.* *New York*, 1885. 8vo.
- BOWIE, A. J., *Jun.* Mining débris in Californian Rivers. *Tract*.
8vo. vol. 443. 1887. 8vo.
- BOWIE, R. A brief Narrative, proving the right of the late W.
Symington, C.E., to be considered the inventor of steam land
carriage locomotion, *etc.* *Tract*. 8vo. *vol.* 55. *Lond.* 1833. 8vo.
- BOWKER, R. R. Annual Literary Index, 1892, *etc.* See FLETCHER,
W. J., and BOWKER, R. R.
- BOWLES, C. Bowles' Draught Map of the River Thames, from its
spring in Gloucestershire to its influx into the sea ; with a table of
all the locks, wears and bridges thereupon. *Lond.* 1787. 8vo.
- BOWLES, F. T. Our new Cruisers. *Tract*. 8vo. *vol.* 424.
Annapolis, 1886. 8vo.
- Ships of War, 1885. *Tract*. 8vo. *vol.* 424.
New York, [1885.] 8vo.
- BOWLEY, R. K. Exhibition of 1862. How are the working classes
throughout the country to get to it? *Tract*. 8vo. *vol.* 137.
[1862.] 8vo.
- BOWLING IRON COMPANY. The "Capell" patent mine venti-
lator. With diagram. *Bradford*, 1891. folio.
- BOWMAN, F. H. The Intermediate Text-book of Physical Science.
2nd edition. *Lond.* 1886. 8vo.
- BOWMAN, J. E. On some remarkable Properties of Water and other
fluids, with reference especially to steam-boiler explosions. *Tract*.
8vo. vol. 62. *Lond.* 1845. 8vo.
- BOWRAL. Correspondence respecting the Railway from Bowral or
Moos Vale to Robertson. *Sydney*, 1888. folio.
- BOX, T. Practical Hydraulics : a series of rules and tables, *etc.*
Lond. 1867. 8vo.
- — 2nd edition. *Lond.* 1870. 8vo.
- — 5th edition. *Lond.* 1879. 8vo.
- A practical Treatise on Heat, as applied to the useful arts, *etc.*
Lond. 1860. 8vo.
- — 3rd edition. *Lond.* 1880. 8vo.
- A practical Treatise on Mill-gearing, Wheels, Shafts, Riggers,
etc. *Lond.* 1869. 8vo.
- A practical Treatise on the Strength of Materials : including
their elasticity and resistance to impact. *Lond.* 1883. 8vo.

BOXER, *Lieut.-Col.* E. M. Diagrams to illustrate the service and management of heavy Ordnance referred to in the treatise on artillery, prepared for the use of the Royal Military Academy. Sect. 2. Parts I and II. *Lond.* 1853-54. folio.

— Remarks on permanent Forts and moveable floating Batteries as means of defence, *etc.* *Tract. 8vo. vol. 132.* [*Lond.*] 1862. 8vo.

— Remarks on the System of Ordnance calculated to prove the most efficient against iron-clad ships and batteries. *Tract. 8vo. vol. 131.* *Woolwich*, 1862. 8vo.

— Remarks on the System proposed by the Royal Commissioners for the Defence of the country. *Tract. 8vo. vol. 132.* *Woolwich*, 1862. 8vo.

— An answer to a Pamphlet written by Col. Lefroy, in reply to the author's Remarks on the system proposed by the Royal Commissioners for the Defence of the country. *Tract. 8vo. vol. 132.* *Woolwich*, 1862. 8vo.

BOXER, F. N. Hunter's Handbook of the Victoria Bridge: also, a short sketch of the lives of the celebrated Stephensons. *Tract. 8vo. vol. 183.* *Montreal*, 1860. 8vo.

BOYCE, G. B. Remarks on the different Systems of Warming and Ventilating Buildings, with reference . . . to an improved . . . calorific apparatus. *Tract. 8vo. vol. 58.* *Lond.* 1824. 8vo.

BOYD, C. Marine Viaduct, or Continental Railway Bridge, between England and France. *Tract. 8vo. vol. 224.* *Barnes*, 1857. 8vo.

BOYD, I. Asbestos and its Applications. *Tract. 8vo. vol. 427.* *Lond.* 1886. 8vo.

BOYD, R. N. Address as President of the Civil and Mechanical Engineers' Society, *etc.* (Petroleum). *Tract. 8vo. vol. 522.* *Lond.* 1890. 8vo.

— Boring for Petroleum in Galicia, Austria, *etc.* *Tract. 8vo. vol. 484.* *Lond.* 1889. 8vo.

— Coal Mines Inspection: its history and results. *Lond.* 1879. 8vo.

— Coal Pits and Pitmen: a short history of the Coal Trade and the legislation affecting it. *Lond.* 1892. 8vo.

— Notes on the Panama Canal, *etc.* *Tract. 8vo. vol. 444.* *Lond.* 1887. 8vo.

BOYDELL, J., *Jun.* Particulars of . . . Iron Work manufactured by the Oak Farm Iron Company, at their works near Dudley, including manufactures under patent rights granted to J. Boydell, *Jun.* *Lond.* 1843. 4to.

BOYER und CONSORTEN. Die patentirten Calorifères-Heizungen. *Tract. 8vo. vol. 145.* *Mannheim*, 1861. 8vo.

BOYER, A., and OTHERS. Dictionnaire anglais-français et français-anglais . . . Nouvelle édition. 2 vols. *Paris*, 1829. 4to.

BOYES, J. Scheme for a central Fish Market. 1881. See CAYLEY, J. J., BOYES, J., and BRIDGMAN, H. *MUNICIPALITY*

- BOYLE, C. B. A Catalogue and Bibliography of North American Mesozoic Invertebrata. [*U.S. Geol. Survey. Bulletin No. 102.*] Washington, 1893. 8vo.
- BOYLE, F. The Ancient Tombs of Nicaragua. *Tract. 8vo. vol. 440.* 8vo.
- The Free Indian Tribes of Central America. *Tract. 8vo. vol. 440.* Lond. 1867. 8vo.
- BOYLE, Hon. R. Certain Physiological Essays, etc. Lond. 1661. 4to.
- A Defence of the Doctrine touching the spring and weight of the air . . . against the objections of Franciscus Linus, etc. Lond. 1682. 4to.
- New Experiments, Physico-mechanical, touching the spring of the air, and its effects, made for the most part in a new pneumatical engine. Third edition. Lond. 1682. 4to.
- — A continuation. Parts 1 and 2. 1669–82. 4to.
- An Examen of Mr. T. Hobbs, his Dialogus physicus de naturâ aeris, as far as it concerns Mr. Boyle's Book of New Experiments touching the Spring of the air, etc. Lond. 1682. 4to.
- Some Considerations touching the usefulness of Experimental Naturall Philosophy . . . Second edition, etc. 2 vols.. Oxford, 1664–71. 4to.
- BOYLE, R. A Sanitary Crusade through the East and Australasia. [By R. Boyle.] 1892. See ANONYMOUS.
- BOYMAN, R. Descent by Ladders . . . to the Great Consols Copper Mine, near Truro, etc. *Tract. 8vo. vol. 78.* Lond. 1840. 8vo.
- Pilbrow's Condensing Cylinder Steam-engine. *Tract. 8vo. vol. 62.* Lond. 1841. 8vo.
- Steam Navigation . . . with authentic tables of the steam marine of all parts of the globe contrasted with the steam power of the British Empire, etc. *Tract. 8vo. vol. 55.* Lond. 1840. 8vo.
- BOYNE, River. Report of a committee appointed by the River Boyne Company, to inquire into the advantage expected to derive from a navigation to extend from Dublin to the northern counties of Ireland, and to the south by a communication with the Grand Canal. *Tract. 8vo. vol. 10.* Drogheda, 1801. 8vo.
- BOYNE BRIDGE. The Boyne Bridge: its history, as originally designed and constructed by Sir John Macneill, together with the correspondence . . . between the directors of the Dublin and Belfast Junction Railway Company and Sir John Macneill, respecting its state in 1858–59. *Tract. 8vo. vol. 127.* Belfast, 1860. 8vo.
- BOYNTON, C. B. The Navies of England, France, America and Russia, etc. *Tract. 8vo. vol. 147.* New York, 1865. 8vo.
- BOYNTON, E. C., Maj. History of West Point, and the origin and progress of the United States Military Academy. New York, 1871. 8vo.

- BOYNTON, F. *Barrack Damages : a handbook for . . . officers when taking over or handing over Barracks and Camps.* York, 1891. 8vo.
- BRABAZON, W. *The Deep-sea and Coast Fisheries of Ireland : with suggestions for the working of a fishing company. Illustrated by William Cooper. Tract. 8vo. vol. 394.* Dublin, 1848. 8vo.
- BRABY, F., and Co. *Instructions for, and examples of, the application of Zinc for covering houses, railway stations, platforms, etc.* Lond. 1869. 8vo.
- BRADDOCK, J. *A Memoir on Gunpowder.* Lond. 1832. 8vo.
- BRADFIELD, J. E. *The Public Carriages of Great Britain. Tract. 8vo. vol. 183.* Lond. 1855. 8vo.
- BRADFORD.—[*Libraries and Museum.*] *Annual Report.* Bradford, 1885, etc. 8vo.
- [Technical College.] *Calendar, 1889–90.* Bradford, 1889. 8vo.
- *Prize Distribution, November 14, 1888. Masters' Reports.* Bradford, 1888. 8vo.
- *Prospectus of the Mechanical and Civil Engineering Department. Session 1885–86.* Bradford [1885.] 8vo.
- [*Water Supply.*] *Bradford Water Supply. The prevention of waste. Tract. 8vo. vol. 438.* Lond. 1886.
- *A copy of all Correspondence which has been addressed to or from the Home Office, and any reports relating to the unsafe state of the . . . Reservoirs, since the 1st day of December last.* Lond. 1866. folio.
- *Minutes of Evidence taken before the Select Committee of the House of Commons on the Bradford Waterworks Bill.* Lond. 1869. folio.
- BRADFORD CANAL. *Minutes of Evidence before a Select Committee of the House of Lords on the Bradford Canal and Leeds and Liverpool Canal Company.* Lond. 1867. folio.
(Incomplete).
- BRADLEE, N. J. *History of the Introduction of pure Water into the city of Boston, with a description of its Cochituate Waterworks.* Boston, Mass. 1868. 8vo.
- BRADLEY, Dr. J. *A letter to the Earl of Macclesfield, concerning an apparent motion observed in some of the Fixed Stars. Tract. 8vo. vol. 33.* Lond. 1747. 8vo.
- *Miscellaneous works and correspondence of J. Bradley ; edited by S. P. Rigaud, etc. 4to.* Oxford, 1832–33. 4to.
- BRADLEY, J. *See BESSEL, F. W. Fundamenta astronomiæ . . . deducta ex observationibus J. Bradley, etc. 1818.*
- BRADLEY, J. W. *Report on . . . Slaughter-houses within the borough of Nelson, etc. 1893. See NELSON.*

- BRADSHAW, G. Map of Canals, Navigable Rivers, Railways, in England, from actual survey, shewing the heights of the pools on the lines of navigation, *etc.* (Appendix. Lengths and Levels.) 2 pt. *Tract.* 8vo. vol. 98, *etc.* *Manchester*, [1820–82.] 8vo.
- Shareholder's Guide, Railway Manual and Directory for 1854, 1857, 1860–72, 1874, 1875, 1877, *etc.* *Lond.* 1854, *etc.* 8vo.
- Tables of the Gradients to Bradshaw's Map of the Railways of Great Britain, *etc.* *Manchester*, 1839. 8vo.
- BRADSHAW, J. New Zealand as it is. *Lond.* 1883. 8vo.
- BRADY, F. Dover Coal Boring: observations on the correlation of the Franco-Belgian, Dover, and Somerset Coal Fields. With reports by V. Watteyne, J. McMurtrie and R. Zeiller. 1892. 8vo.
- Specifications and Particulars of Works. South Eastern Railway. *Lond.* 1874–85. folio.
- BRADY, J. Water supply to the City of Brisbane, Queensland. *Tract.* folio. vol. 21. *Brisbane*, 1866. folio.
- BRAET, G. Note sur la construction et la stabilité des cheminées en maçonnerie. *Tract.* 8vo. vol. 454. *Bruxelles*, 1885. 8vo.
- Note sur la détermination des dimensions des murs de soutènement. *Tract.* folio. vol. 29. [*Bruxelles*, 1882?] folio.
- Note sur la détermination des dimensions principales des voûtes. *Tract.* folio. vol. 29. [*Bruxelles*, 1882?] folio.
- Note sur les moyens de prévenir les amoncellements de neige. *Tract.* folio. vol. 33. *Bruxelles*, [1860?] folio.
- BRAHAM, C. B. Report on an improvement to the Water Supply of Bombay, 1876. *See* INDIA.—BOMBAY.
- BRAIDWOOD, J. Fire-prevention and Fire-extinction; including fire-proof structures, fire-proof safes, public fire-brigades, *etc.* *Lond.* 1866. 8vo.
- On Fire-proof Buildings. *Tract.* 8vo. vol. 501. *Lond.* 1850. 8vo.
(From Min. Proc. Inst. C.E.)
- On the construction of Fire-engines and Apparatus, the training of firemen, *etc.* *Edinburgh*, 1880. 8vo.
- On the means of rendering large supplies of Water available in cases of Fire; and on the application of manual power to the working of Fire-Engines. *Tract.* 8vo. vol. 501.
(From Min. Proc. Inst. C.E.) *Lond.* 1844. 8vo.
- BRAITHWAITE, F. On the Infiltration of Salt Water into the Springs of Wells under London and Liverpool. *Tract.* 8vo. vol. 501.
(From Min. Proc. Inst. C.E.) *Lond.* 1856. 8vo.
- BRAMAH, J. A Dissertation on the Construction of Locks. 2nd edition. *Tract.* 8vo. vol. 57. *Lond.* 1815. 8vo.
- The Lock Controversy. *Tract.* 8vo. vol. 295. *Lond.* 1851. 8vo.
- Specification of Patent, for a new improved Engine, or Machine, on a rotative principle, dated Jan. 15, 1790. *Tract.* 8vo. vol. 62.
[1790?] 8vo.

- BRAMAH, J.—*continued*. Specification of Patent for improvements in the method of constructing, laying down, and organizing the main and other pipes, for conveyance of water for the supply of the metropolis, *etc.* *Tract. 8vo. vol. 78.* *Lond.* 1812. 8vo.
- A letter to Sir James Eyre . . . on the subject of the Cause, Boulton and Watt *v.* Hornblower and Maberley, for Infringement on Mr. Watt's Patent for an Improvement on the Steam Engine. *Tract. 8vo. vol. 504.* *Lond.* 1797. 8vo.
- BRAMALL, H. The Mineral Resources of New Zealand. *Liverpool*, 1883. 8vo.
- Modern Progress in Mine Engineering. *Tract. 8vo. vol. 360.* *Liverpool*, 1884. 8vo.
- BRAMÉ, E. Étude sur les signaux de chemins de fer à double voie. (Atlas of plates.) *Paris*, 1867. 8vo.
- BRAMWELL, Sir F. J. Address to the British Association [on the Work of the Civil Engineer]. *Tract. 8vo. vol. 467.* *Lond.* 1888. 8vo.
- Address to the Institution of Mechanical Engineers [on the Profession of the Mechanical Engineer]. *Tract. 8vo. vol. 249.* *Lond.* 1874. 8vo.
- Address to the Mechanical Section of the British Association [on the use and abuse of Coal], Brighton, 1872. *Tract. 8vo. vol. 229.* [*Lond.* ? 1872.] 8vo.
- Boiler Explosion Committee. Heads of the evidence given by F. Bramwell, *etc.* *Tract. 8vo. vol. 450.* *Lond.* 1871. 8vo.
- Boro' of Liverpool. Waste Water Meter recently patented. Report of Mr. Bramwell. *Tract. 8vo. vol. 236.* *Liverpool*, 1874. 8vo.
- The Expediency of Protection for Inventions. *Tract. 8vo. vol. 254.* *Lond.* 1875. 8vo.
- London (below bridge) North and South Communication: a lecture, *etc.* *Tract. 8vo. vol. 359.* *Lond.* 1884. 8vo.
- On some of the Developments of Mechanical Engineering during the last half-century. *Tract. 8vo. vol. 336.* *Lond.* 1882. 8vo.
- On the Influence of Form considered in relation to the strength of Railway Axles, *etc.* *Tract. 8vo. vol. 212.* 1869. 8vo.
- On the Steam Engine. [Science Lectures at South Kensington. Vol. 1.] *Lond.* 1878. 8vo.
- Our Big Guns. *Tract. 8vo. vol. 424.* *Lond.* 1886. 8vo.
- Paper on London Water Supply. *Tract. 8vo. vol. 407.* *Lond.* 1877. 8vo.
- Railway Safety Appliances. *Tract. 8vo. vol. 256.* *Bristol*, 1875. 8vo.
- Railways and Locomotives, 1882. See BARRY, J. W., and BRAMWELL, Sir F. J.
- Report by Messrs. Bazalgette, Bramwell and Easton on . . . an efficient supply of Water for Extinguishing Fires, *etc.* 1877. See LONDON.—[*Water Supply.*]

- BRAMWELL, Sir F. J.—*continued*. Talking by Electricity: Telephones. *Tract.* 8vo. vol. 361. *Southport*, 1883. 8vo.
- The "Thunderer" gun explosion. Lecture, etc. (Sequel to the "Thunderer" gun explosion.) *Tract.* 8vo. vol. 328. *London*. 1879-80. 8vo.
- BRAMWELL, Sir F. J., and ANDERSON, W. Report of the Consulting Engineers on the trials of portable agricultural steam engines at Newcastle. *Tract.* 8vo. vol. 451. *London*. 1887. 8vo.
- BRAND, A. B. The Beaufort Dam. *Tract.* 8vo. vol. 477. [*Cape Town*,] 1883. 8vo.
- BRANDE, W. T. An Introductory Discourse [to a course of lectures on Chemical Science], delivered in the amphitheatre of the London Institution. *Tract.* 8vo. vol. 188. *London*. 1819. 8vo.
- A Manual of Chemistry. 2 vols. 6th edition. *London*. 1848. 8vo.
- Outlines of Geology. *London*. 1829. 12mo.
- BRANDE, W. T., and Cox, Rev. G. W. A Dictionary of Science, Literature, and Art, etc. 3 vols. *London*. 1865-67. 8vo.
- BRANDIS, D.; and STEWART, J. L. The Forest Flora of North-West and Central India, etc. (Atlas of plates.) *London*. 1874. 8vo. and 4to.
- BRANDLING, R. W. Junction Railway to connect the towns of Gateshead, South Shields, and Monk Wearmouth; to facilitate the communication between the adjacent towns of Newcastle-upon-Tyne, North Shields, etc. *Tract.* 8vo. vol. 234. *London*. 1835. 8vo.
- BRANDT, E. Lehrbuch der Eisen-konstruktionen, mit besonderer Anwendung auf den Hochbau, etc. *Berlin*, 1865. 8vo.
- BRANFILL, J. The Earthwork Measurer. *Tract.* 8vo. vol. . *London*. 1877. 8vo.
- BRANNT, W. T. The Metal Worker's Handy-book of receipts and processes. *Philadelphia*, 1890. 8vo.
- BRANSBY, J. Properties of a Right-angled Triangle: and of the lines drawn and figures formed in and about the diagram of the 47th proposition of the 1st Book of Euclid's Elements. *Tract.* 8vo. vol. 504. *London*. [] 8vo.
- BRANSFORD, Dr. J. F. Sanitary Notes on the Nicaragua Canal. *Tract.* 4to. vol. 92. *New York*, 1883. 4to.
- BRANT, J. C. Specification of improvements in laying Rails, Chairs, and Sleepers for the permanent way of railways. *Tract.* 4to. vol. 41. *London*. 1855. 4to.
- BRASHEAR, J. A. The Lick Telescope. *Tract.* 4to. vol. 105. *Pittsburgh*, 1886. 4to.
- BRASHER, A. The International Telegraph Convention concluded at St. Petersburg, 1875. *London*. 1876. folio.

- BRASHER, A.—*continued*. The International Telegraph Convention : revised at Rome, 1872. Translation adopted by the Post Office, and by the Indian and other administrations of telegraph.
Lond. 1872. folio.
- International Telegraph Convention with Berlin : revision of service regulations and tariffs, 1885.
Lond. [1885.] folio.
- International Telegraph Convention with London : revision of service regulations and tariffs, 1879.
Lond. [1879.] folio.
- BRASSEY, Lord. The British Navy. 5 vols. *Lond.* 1882–83. 8vo.
- Foreign Work and English Wages considered with reference to the depression of trade.
Lond. 1879. 8vo.
- Lectures on the Labour Question. 3rd edition. *Lond.* 1878. 8vo.
- The Naval Annual, 1886, *etc.* See PERIODICAL PUBLICATIONS.
- Unarmoured Ships. *Tract.* 8vo. vol. 254. *Lond.* 1875. 8vo.
- Wages in 1873. *Tract.* 8vo. vol. 240. *Lond.* 1873. 8vo.
- BRASSINGTON, C. P. Report on the valuation of the lands proposed to be drained in the Ballinamore and Ballyconnell district, in the counties of Cavan, Fermanagh, and Leitrim.
Dublin, 1845. 8vo.
- District of the Deel. Report . . . on the drainage and improvement of lands in the district.
Dublin, 1846. 8vo.
- BRAUN, E. Le canal de Terneuzen, *etc.* 1881. See BRUNEL, O., and BRAUN, E.
- Notice sur le canal de Terneuzen et le port de Gand.
Gand, 1885. 8vo.
- BRAUN, F. Über elektrische Kraftübertragung, insbesondere über Drehstrom, *etc.* *Tract.* 8vo. vol. 517. *Tübingen*, 1892. 8vo.
- BRAVAIS, A., and MARTINS, C. Notice préliminaire sur les séries météorologiques correspondantes à celles du Faulhorn et du Mont-Blanc. *Tract.* 4to. vol. 45.
[Paris, 1851.] 4to.
- BRAVAIS, A., PELTIER, A., and WACHSMUTH, F. Séries météorologiques faites au sommet du Faulhorn, au grand plateau du Mont-Blanc, à Brienz, et à Chamonix, en 1841, 1842, et 1844.
Tract. 4to. vol. 45.
[Paris, 1844.] 4to.
- BRAYLEY, E. W. Abstract of a lecture on the Nature and Physical History of Glass. *Tract.* 8vo. vol. 193. *[Lond. 1845.]* 8vo.
- Abstract of a lecture on the Nature and Physical History of Porcelain and Earthenware. *Tract.* 8vo. vol. 193.
[Lond.] 1845. 8vo.
- An Account of the Parish Church of St. Pancras, *etc.* 1824.
 See BRITTON, J., and BRAYLEY, E. W.
- BRAYLEY, E. W., and BRITTON, J. The History of the ancient Palace and late Houses of Parliament at Westminster, *etc.*
Lond. 1836. 8vo.

- BRAZIL.**—[*Agriculture.*] Comissão do Ministerio da Agricultura, Commercio e Obras Publicas na Europa e nos Estados Unidos da America do Norte. Relatorio apresentado pelo Chefe da mesma Comissão. *Paris*, 1887. 4to.
- [Public Works.] A exposição de obras publicas em 1875. *Rio de Janeiro*, 1876. 8vo.
- [Railways.] As estradas de ferro do Brazil em 1879. pt. 1. *Rio de Janeiro*, 1880. 8vo.
- Companhia geral de estradas de ferro Brasileiras. Mappa geral mostrando a estrada de ferro de Paranaguá a Corityba e seu prolongamento até á foz do Rio Iguassu. [*Rio de Janeiro* ?] 1883. 8vo.
- BRAZILL, T.** Report to the Corporation of Dublin on the proposed supply of the City and Suburbs with pure water at high pressure. *Tract.* 8vo. vol. 110. *Dublin*, 1854. 8vo.
- BRAZOS RIVER, Texas.** Letter from the Secretary of War, transmitting a report of the survey at the mouth of Brazos River, Texas. *Tract.* 8vo. vol. 486. *Washington City*, 1888. 8vo.
- BREAN DOWN.** Brean Down: festivals and events of 2000 years. By Silver Spur. *Lond.* [1889 ?] 8vo.
- BREAREY, F. W.** Paper on the Aëronautical Society of Great Britain. *Tract.* 8vo. vol. 224. *Lond.* 1866. 8vo.
- BRECKENRIDGE, C. R.** Speech in the House of Representatives on Rivers and Harbours. *Tract.* 8vo. vol. 376. *Washington*, 1885. 8vo.
- BRECKNOCK AND ABERGAVENNY CANAL.** Acts for constructing the Brecknock and Abergavenny Canal, and for raising money. *Lond.* 1793, 1804. folio.
- BRECKON, J. R.** Facts and Figures concerning the manufacture of Coke and the collection of bye-products by the Simon-Cawe's process. *Tract.* 8vo. vol. 391. *Manchester*, 1884. 8vo.
- BRECON AND MERTHYR TYDFIL JUNCTION RAILWAY.** Report by the Board of Trade . . . on the Classification of Merchandise Traffic and the schedule of maximum rates, etc. *Lond.* 1891. folio.
- BREEN, H.** On the corrections of Bouvard's elements of the orbits of Jupiter and Saturn. 1869. See GREENWICH OBSERVATORY.
- BREES, S. C.** A Collection of working Plans and practical details of construction in the public works of the most celebrated engineers. Series 1-4. 4 vols. *Lond.* 1837-47. 4to.
- A Glossary of Civil Engineering, comprising its theory and modern practice. *Lond.* 1841. 8vo.
- The illustrated Glossary of Practical Architecture and Civil Engineering, etc. *Lond.* 1853. 8vo.
- BRÉGUET, L.** Essai sur la force animale, et sur le principe du mouvement volontaire. *Tract.* 8vo. vol. 266. *Paris*, 1811. 8vo.

- BRÉGUET, L.—*continued*. Report on the competition relative to the construction of a Machine fit for grinding Optic Lenses, *etc.* *Tract.* 8vo. vol. 57. Paris, 1825. 8vo.
- BREMNER, D. The Industries of Scotland. *Edinburgh*, 1869. 8vo.
- BREMNER, J. Account of the town and harbour of Pulteney-town, Wick, Caithness . . . and description of the caaks used for floating large stones, to construct sea-walls in deep water. *Tract.* 8vo. vol. 75. (From Min. Proc. Inst. C.E.) Lond. 1844. 8vo.
- Explanation of a Machine for lifting a cargo of iron sunk in Sinclair's-birth Bay, in 1829, buried in the sand 6 feet deep, *etc.* *Tract.* 8vo. vol. 62. Wick, 1836. 8vo.
- General Remarks on the Machinery employed in the rebuilding of the harbour of Sarclet, in the parish of Wick, *etc.* *Tract.* 8vo. vol. 62. Wick [1836 ?] 8vo.
- Treatise on the Planning and Constructing of Harbours in deep water, applicable to the deepening and cleaning of rivers for navigation, *etc.* *Tract.* 8vo. vol. 75. Wick, 1845. 8vo.
- BREMONTIER, N. T. Extrait du recueil des portraits et histoire des hommes utiles, bienfaiteurs et bienfaitrices de l'humanité, *etc.* *Tract.* 8vo. vol. 53. Paris, 1839. 8vo.
- Recherches sur le mouvement des ondes. Paris, 1809. 8vo.
- BRENAN, G. W. Healthy Homes : or the necessity of soil-pipe ventilation. *Tract.* 8vo. vol. 325. Inverness, 1880. 8vo.
- BRENNECKE, L. Der Grundbau, *etc.* [Handbuch der Baukunde, Abt. III.]. Berlin, 1887. 8vo.
- BRENT, H. W. The Law of Port Helm, *etc.* 1866. See COLOMB, P. H., and BRENT, H. W.
- BRENTFORD. The Brentford and District Tramways Act. Lond. 1885. folio.
- Brentford and District Tramways (Abandonment) Act, 1890. Lond. 1890. folio.
- BRERETON, R. M. Norfolk. Report on the County and Public Bridges and Fords and Bridge Statutes. *Tract.* 4to. vol. 87. Norwich, 1881. 4to.
- Project for English middle and yeoman class colonies for California. *Tract.* 8vo. vol. 249. Westminster, [1875 ?] 8vo.
- Report of the County Road Surveyor, Norfolk. First and third special reports. *Tract.* 4to. vol. 87. Norwich, 1879. 4to.
- Report on the Highway Management and Audit Systems in the County of Norfolk. *Tract.* 4to. vol. 93. Norwich, 1884. 4to.
- BRESSANT, A. H. P. See PITON-BRESSANT, A. H.
- BRESSE, J. A. C. Cours de mécanique appliquée, professé à l'École des Ponts et Chaussées. 3 vols. Paris, 1859–65. 8vo. (Vol. 2, second edition.)
- [Another edition.] 3 vols. (With atlas of plates to vol. 3.) Paris, 1865–80. 8vo. and 4to. (Vols. 1 and 2 are of the 3rd edition, and vol. 3 is of the 1st edition.)

- BRESSE, J. A. C.—*continued*. Water-wheels; or, hydraulic motors : translated from the "Cours de mécanique appliquée." New edition. *New York*, 1876. 8vo.
- Cours de mécanique et machines. 2 vols. *Paris*, 1885. 8vo.
- Recherches analytiques sur la flexion et la résistance des pièces courbes, accompagnées de tables numériques pour calculer la poussée des arcs chargés de poids, *etc.* *Paris*, 1854. 4to.
- BRESSON, G. Les aciers, leurs propriétés, leur fabrication, leurs emplois. *Paris*, 1886. 8vo.
- Exposition Universelle de 1889. Sidérurgie. *Tract.* 8vo. vol. 488. [*Paris*,] 1889. 8vo.
- BRET LAND, J. C. Belfast Main Drainage. Contract Drawings, 1889–93. *Belfast*, 1883. obl. folio.
- BRET LAND, J. C., and BAZALGETTE, Sir J. W. Reports on proposed permanent bridge in lieu of Albert Bridge and the improvement of the River Lagan. *Tract.* 8vo. vol. 428. *Belfast*, 1886. 8vo.
- BRETON, E. Pompeii décrite et dessinée, suivie d'une notice sur Herculanéum. *Paris*, 1855. 8vo.
- Traité du lever des plans et de l'arpentage. *Paris*, 1865. 8vo.
- Traité du nivellement. 3^{me} édition. *Paris*, 1873. 8vo.
- BRETON, P. Mémoire sur les barrages de retenue des graviers dans les gorges des torrents. *Paris*, 1867. 4to.
- Étude d'un système général de défense contre les torrents, concertée entre les fonctionnaires des forêts et des ponts et chaussées. *Paris*, 1875. 4to.
- BRETT COLLECTION. Catalogue of the Brett Collection of Pictures, and other works of art. *Lond.* 1864. 8vo.
- BRETT, H. Brett's Auckland Almanac. *See* PERIODICAL PUBLICATIONS.
- BRETT, HENRY. Lough Alick district, county of Mayo. Report on the drainage of the lands in the above district. Vol. I. *Dublin*, 1846. 8vo.
- Mullfarry Lake district, county of Mayo. Report on the drainage and improvement of the lands in the above district. *Dublin*, 1846. 8vo.
- BRETT, J. W. On the Origin and Progress of the Oceanic Electric Telegraph. *Tract.* 8vo. vol. 380. *Lond.* 1858. 8vo.
- BRETT, Dr. B. H., and OTHERS. Testimonials to Mr. Williams' Mode of effecting the combustion of Coal in furnaces. *Tract.* 8vo. vol. 58. *Liverpool*, 1841. 8vo.
- BRETT, Dr. R. H., and LITTLE, —. Compendium of the improvements effected in Electric Telegraphs . . . with a description of their patent electro-telegraphic converser. *Tract.* 8vo. vol. 82. *Lond.* 1847. 8vo.
- BREWER, T. Memoir of John Carpenter, town clerk of London in the reigns of Henry V. and Henry VI. *Tract.* 8vo. vol. 403. *Lond.* 1836. 8vo.

- BREWSTER, Sir D. Demonstration of the Fundamental Property of the Lever. *Tract. 4to. vol. 19.* *Edinburgh, 1812. 4to.*
 (From the Transactions of the Royal Society of Edinburgh.)
- The Edinburgh Encyclopædia: edited by Sir D. Brewster. 18 vols. and supplementary part. *Edinburgh, 1830. 4to.*
- The History of the Invention of the Dioptric Lights, and their introduction into Great Britain. *Tract. 8vo. vol. 158.*
Lond. 1867. 8vo.
- Memoirs of the Life, Writings, and Discoveries of Sir Isaac Newton. 2 vols. *Edinburgh, 1855. 8vo.*
- Memorial on the new System of Dioptric Lights invented . . . by Sir D. Brewster. *Tract. 8vo. vol. 198. Cupar, 1859. 8vo.*
- On a new Optical and Mineralogical Property of Calcareous-spar. *Tract. 4to. vol. 19.* *Edinburgh, 1816. 4to.*
 (From the Transactions of the Royal Society of Edinburgh.)
- On a new Species of coloured Fringes, produced by the reflection of light between two plates of parallel glass of equal thickness. *Tract. 4to. vol. 19.* *Edinburgh, 1815. 4to.*
 (From the Transactions of the Royal Society of Edinburgh.)
- On the Action of transparent Bodies upon the differently coloured rays of light. *Tract. 4to. vol. 19.* *Edinburgh, 1815. 4to.*
 (From the Transactions of the Royal Society of Edinburgh.)
- On the Effect of Compression and Dilatation in altering the polarising structure of doubly refracting crystals. *Tract. 4to. vol. 19.* *Edinburgh, 1818. 4to.*
 (From the Transactions of the Royal Society of Edinburgh.)
- On the Laws which regulate the distribution of the polarising force in plates, tubes, and cylinders of glass. *Tract. 4to. vol. 19.* *Edinburgh, 1818. 4to.*
 (From the Transactions of the Royal Society of Edinburgh.)
- On the Optical Properties of muriate of soda, fluat of lime, and the diamond. *Tract. 4to. vol. 19.* *Edinburgh, 1816. 4to.*
 (From the Transactions of the Royal Society of Edinburgh.)
- On Wrought-iron Tubular Cranes designed by William Fairbairn. *Tract. 8vo. vol. 435.* *Lond. 1852. 8vo.*
- The Stereoscope: its history, theory, and construction, *etc.* *Lond. 1856. 8vo.*
- A treatise on Magnetism, *etc.* *Edinburgh, 1838. 8vo.*
- A treatise on new Philosophical Instruments . . . with experiments on light and colours. *Edinburgh, 1813. 8vo.*
- A treatise on Optics. [Lardner's Cabinet Cyclopædia.] *Lond. 1831. 8vo.*
- See ROBISON, J. The articles Steam and Steam Engines, written for the Encyclopædia Britannica, edited by Sir D. Brewster. 1818.
- A System of Mechanical Philosophy, edited by Sir D. Brewster. 1822.

- BREWSTER, E. H. G. Opening address of the President of the Civil and Mechanical Engineers' Society . . . 1886. *Tract. 8vo. vol. 445.* *Lond. 1887. 8vo.*
- Opening Address of the President of the Civil and Mechanical Engineers' Society : [giving a history of the Society and a review of important engineering works recently completed or in progress.] *Tract. 8vo. vol. 522.* *Lond. 1880. 8vo.*
- The Smoke Nuisance, and an account of some experiments relating thereto. *Tract. 8vo. vol. 361.* *Lond. 1883. 8vo.*
- BREYMANN, G. A. Allgemeine Bau-Construction-Lehre, mit besonderer Beziehung auf das Hochbauwesen. 3 vols. *Stuttgart, 1854–57. 4to.*
- BRICKA, M. Voies entièrement métalliques à l'étranger. *Paris, 1886. folio.*
- BRIDEL, G. Examen critique des systèmes d'exécution appliqués à la construction rapide des grands tunnels. *Tract. 4to. vol. 89.* *Lucerne, 1883. 4to.*
- BRIDGE, Rev. B. An Introduction to the Study of the mathematical principles of Natural Philosophy ; containing a series of lectures upon the rectilinear and projectile motion, the mechanical action, and the rotatory and vibratory motion of bodies. 2 vols. *Broxbourne, 1813. 8vo.*
- BRIDGEMAN, C. A Report of the present State of the Great Level of the Fenns, called Bedford Level ; and of the port of Lynn : and of the rivers Ouze and Nean. . . . With considerations on the scheme propos'd by the corporation of Lynn, for the draining the said fenns. . . . And also a scheme humbly propos'd for the effectual draining those fenns, etc. *Tract. 4to. vol. 54.* *1724. 4to.*
- BRIDGES, L. The Overflow of the Mississippi River : with discussion by E. L. Corthell and J. A. Ockerson. *Tract. 8vo. vol. 471.* *New York, 1882. 8vo.*
- BRIDGEWATER CANAL. Bridgewater Canal Extension Act. *Lond. 1795. folio.*
- BRIDGEWATER COLLECTION. Catalogue of pictures, belonging to the Earl of Ellesmere, at Bridgewater House. *Tract. 8vo. vol. 121.* *Lond. 1851.*
- BRIDGEWATER TREATISES. The Bridgewater Treatises on the power, wisdom, and goodness of God, as manifested in the Creation. [Consisting of] :
- I. The Adaptation of External Nature to the moral and intellectual constitution of man. By Dr. T. Chalmers. 2 vols. *Lond. 1835. 8vo.*
 - II. On the Adaptation of External Nature to the physical condition of man. By Dr. J. Kidd. 5th edition. *Lond. 1837. 8vo.*
 - III. On Astronomy and general Physics considered with reference to Natural Theology. By the Rev. W. Whewell, D.D. 7th edition. *Lond. 1839. 8vo.*

BRIDGEWATER TREATISES—*continued*.

IV. The Hand, its Mechanism and vital Endowments as evincing design. By Sir C. Bell. 4th edition. *Lond.* 1837. 8vo.

V. Animal and vegetable Physiology considered with reference to Natural Theology. By Dr. P. M. Roget. 2 vols. *Lond.* 1834. 8vo.

VI. Geology and Mineralogy considered with reference to Natural Theology. By the Rev. W. Buckland, D.D. 2nd edition. 2 vols. *Lond.* 1837. 8vo.

VII. On the History, Habits, and Instincts of animals. By the Rev. W. Kirby. 2nd edition. 2 vols. *Lond.* 1835. 8vo.

VIII. Chemistry, Meteorology, and the Function of Digestion, considered with reference to Natural Theology. By Dr. W. Prout. *Lond.* 1834. 8vo.

BRIDGMAN, H. H. Scheme for a central Fish Market for London, 1881. See CAYLEY, J. J., BOYES, J., and BRIDGMAN, H. H.

— Street Re-alignment and Re-construction of Central London, *etc.* [*Westgarth Prize Essay.*] *Lond.* 1886. 8vo.

BRIDLINGTON. Bridlington Harbour. Minutes of evidence taken before the Lords' Committee. *Lond.* 1837. folio.

BRIDPORT RAILWAY. Report by the Board of Trade . . . on the Classification of Merchandise Traffic, and schedule of maximum rates, *etc.* *Lond.* 1891. folio.

BRIERLEY, J. Sewage and Sanitary Works. *Tract.* 8vo. vol. 203. *Blackburn,* 1871. 8vo.

BRIERLY HILL. Report on a Boiler Explosion at Messrs. Hill and Smith's Works, Brierly Hill. *Lond.* 1882. folio.

BRIGGS, D., *Capt.* Report on the Hindostan and Thibet Road. 1856. See INDIA.—[*Roads.*]

BRIGGS, R. Gas Making and Purification. *Tract.* 8vo. vol. 262. *Philadelphia,* 1876. 8vo.

— On the Ventilation of Halls of Audience. *Tract.* 8vo. vol. 465. *New York,* 1881. 8vo.

— Report on the plans for warming and ventilating the Bridgeport school house, *etc.* *Tract.* 8vo. vol. 330. *Philadelphia,* 1880. 8vo.

— Report on the Ventilation of the Hall of Representatives and of the south wing of the Capitol of the United States. *Tract.* 8vo. vol. 267. *Philadelphia,* 1876. 8vo.

BRIGHENTI, M. Relazione intorno alla generale livellazione del fiume Reno eseguita negli anni 1854, 1855. *Roma,* 1857. folio.

BRIGHT, C., *Assoc. M. Inst. C.E.* Yof-Dakar Underground Cables. Report on Repairs, 1893. [*Lond.* 1893.] 8vo.

BRIGHT, Sir C. Address as President of the Society of Telegraph-Engineers and Electricians, January 13th, 1887. *Tract.* 8vo. vol. 467. *Lond.* 1887. 8vo.

- BRIGHT, H. Remarks on Street Tramways applied to London and its suburbs. *Tract. 8vo. vol. 166.* Lond. 1868. 8vo.
- BRIGHTMORE, A. W. Principles of Waterworks Engineering. 1893. See TUDSBURY, J. H. T., and BRIGHTMORE, A. W.
- BRIGHTON.—[*Gas.*] Brighton and Hove Gas Act, 1879. Lond. 1879. folio.
- [Improvement.] Brighton Improvement Bill. Police and Sanitary Regulations. Minutes of Evidence and Minutes of Speech. Lond. 1884. folio.
- [Library.] Annual Report, 1885, (1891 and 1893). Brighton, 1885–93. 8vo.
- [Sewerage.] Reports on the Sewerage of Brighton, etc. 1883. See BAZALGETTE, Sir J., and RICHARDSON, B. W.
- [Waterworks.] Inspection of Goldstone Bottom Pumping Station. *Tract. 8vo. vol. 506.* [Brighton, 1884.] 8vo.
- BRIGHTON HEALTH CONGRESS. Transactions. Lond. 1881. 8vo.
- BRINDLEY, J. Queries proposed by the committee of the Common Council of the city of London about the intended Canal from Monkey Island to Isleworth answered. *Tract. folio. vol. 3.* Lond. 1770. folio.
- Report on the River Thames between Boulter's Lock and Mortlake. *Tract. folio. vol. 3.* Lond. 1770. folio.
- History of Inland Navigations. 1766, etc. See ANONYMOUS.
- BRINDLEY, J., YEOMAN, T., and GOLBORNE, J. Reports relative to a navigable communication betwixt the Firths of Forth and Clyde, with observations. *Tract. 4to. vol. 7.* Edinburgh, 1768. 4to.
- BRINE, F., Col. Iceland and the Faroes. *Tract. 8vo. vol. 333.* [1881.] 8vo.
- BRINKLEY, J. An account of observations made at the Observatory of Trinity College, Dublin, with an astronomical circle, eight feet in diameter, which appears to point out an annual parallax in certain fixed stars, etc. *Tract. 4to. vol. 25.* Dublin, 1815. 4to.
- Analytical investigations respecting Astronomical Refractions, and the application thereof to the formation of convenient tables, etc. *Tract. 4to. vol. 25.* Dublin, 1815. 4to.
- Elements of Astronomy. 2nd edition. Dublin, 1819. 8vo.
- An examination of various solutions of Kepler's Problem, etc. *Tract. 4to. vol. 25.* Dublin, 1803. 4to.
- An investigation of the general term of an important series in the inverse method of finite differences. *Tract. 4to. vol. 25.* Lond. 1807. 4to.
- A Method of expressing, when possible, the value of one variable quantity in integral powers of another and constant quantities having given equations respecting the relations of those variable quantities, etc. *Tract. 4to. vol. 25.* Dublin, 1800. 4to.

- BRINDEN, J., and HARDING, R. Devon Estate drainage, Ehernagh district (near Newcastle), county Limerick. Report, *etc.*
Dublin, 1846. 8vo.
- BRIOT, C., and VACQUANT, C. Arpentage, levé des plans, et nivellement.
Paris, 1887. 8vo.
- BRISBANE.—[*Docks.*] Report on the proposed Dry Dock at Brisbane.
Brisbane, 1875. folio.
- [*Rainfall.*] Diagram of Rainfall at Brisbane, from 1st January, 1860, to 31st December, 1890. [1892?]. folio.
- [*Vital Statistics.*] Report on the Vital Statistics of the Registry District of Brisbane. Supplement to the Queensland Government Gazette.
Brisbane, 1884. folio.
- [*Water Supply.*] Purification and increase of the Water Supply of Brisbane.
Brisbane, 1886. folio.
- Report . . . by J. B. Henderson. *Brisbane*, 1880. folio.
- Reports on the Water Supply of Brisbane, by J. Brady.
Brisbane, 1866–68. folio.
- Report of the Hydraulic Engineer on purifying the Water of Brisbane.
Brisbane, 1886. folio.
- [*Wharfage.*] Plan showing soundings in front of Wharves, and design for the extension of wharfage and Harbour Accommodation.
Brisbane, 1878. folio.
- BRISBANE, *River.* Report on the Dredging of the Brisbane River.
Brisbane, 1877. folio.
- BRISBANE AND IPSWICH RAILWAY. Papers relating to the Construction of the Railway.
Brisbane, 1873. folio.
- Progress Report. *Brisbane*, 1875. folio.
- Report . . . from R. Watson. *Brisbane*, 1876. folio.
- Reply to Report by R. Watson. *Brisbane*, 1876. folio.
- BRISSE, A., and ROTROU, L. DE. Dessèchement du lac Fucino exécuté par S. E. le Prince Alexandre Torlonia. Précis historique et technique. (Atlas of plates.) [Fr. and Eng.]
Rome, 1876. 4to.
- BRISSE, C. Cours de mécanique à l'usage des élèves de la classe de mathématiques spéciales, *etc.*
Paris, 1892. 8vo.
- BRISTOL. An Engineer's views on the Government of Bristol. [By E. R. Salwey.] *Tract.* 8vo. vol. 522. [*Bristol*, 1893.] 8vo.
- The Improvement of Bristol: a report by the Water-Supply, Drainage and Towns Improvement Company. *Lond.* 1846. 8vo.
- Mechanics' Institution.* Fifteenth Annual Report, for the year 1839. *Tract.* 8vo. vol. 68. *Bristol*, 1840. 8vo.
- Merchant Venturers' School.* Prospectus, 1886–87 to 1889–90. 4 vols. *Bristol*, 1886–89. 8vo.
- Mining School.* Lectures delivered at the Bristol Mining School, 1857. *Bristol*, 1859. 8vo.

- BRISTOL—*continued*.—*University College. Calendar . . . 1878–79, (1880–81, 1883–84, etc.). Bristol, 1878, etc. 8vo.*
- [Ninth Annual] Meeting of the Governors, *etc. Tract. 8vo. vol. 414. Bristol, 1885. 8vo.*
- [Docks.] Bristol Docks. Dockising the River Avon. Reports on Floods, *etc. Tract. folio. vol. 30. Bristol [1881.] folio.*
- Explanation of the Plan for improving the Harbour of Bristol. *Tract. folio. vol. 47. Bristol, 1802. folio.*
- A Plain Statement of Facts : wherein the differences . . . existing between the Bristol Dock Company and the inhabitants of Bristol upon the Bill now before Parliament are briefly considered. By a Bristol merchant. *Tract. 8vo. vol. 75. Bristol, 1807. 8vo.*
- Report on the circumstances attending the destruction of the Petroleum-laden vessel "United," in Bristol Docks, on the 21st November, 1888, by Col. V. D. Majendie. *Lond. 1889. folio.*
- [Education.] Statistics of Education in Bristol : by a Committee of the Statistical Society of Bristol. *Tract. 8vo. vol. 69. Lond. 1841. 8vo.*
- [Water-Supply.] An Act for supplying with Water the City of Bristol and certain Parishes adjacent thereto, *etc. Lond. 1846. folio.*
- An Act for better supplying with Water the town of Bristol, *etc. Lond. 1850. folio.*
- An Act to authorize the Waterworks Company to raise a further sum of money. *Lond. 1850. folio.*
- Minutes of Evidence before the Select Committee on the Bristol Consumers Water Bill. *Lond. 1887. folio.*
- BRISTOL CANAL. Inquiry into the utility of a Canal from Bristol to Bath. *Tract. 8vo. vol. 66. Bristol, 1795. 8vo.*
- BRISTOL NATURALISTS' SOCIETY. Proceedings. Vol. 5, Part II. (1886–87). *Bristol, 1887. 8vo.*
- BRISTOW, H. W. The Geology of the Isle of Wight. 2nd edition, *etc. [Memoirs of the Geological Survey.] Lond. 1889. 8vo.*
- A Glossary of Mineralogy. *Lond. 1861. 8vo.*
- On the Lower Lias or lias conglomerate of a part of Glamorgan-shire. *Tract. 8vo. vol. 161. Lond. 1867. 8vo.*
- BRISTOW, H. W., and WHITAKER, W. On the formation of the Chesil bank, Dorset. *Tract. 8vo. vol. 175. Lond. 1869. 8vo.*
- BRITANNIA BRIDGE. General description of the Britannia and Conway tubular bridges on the Chester and Holyhead Railway. By a Resident Assistant. *Tract. 8vo. vol. 82. Lond. 1849. 8vo.*

BRITISH AND FOREIGN RAILWAY COMPANY. New and profitable Railway Investments. *Tract. 8vo. vol. 221.*

Leeds, 1872. 8vo.

BRITISH AND FOREIGN RAILWAY LOCOMOTIVE ENGINE COMPANY. Prospectus. *Tract. 8vo. vol. 229.*

Lond. 1847. 8vo.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. Reports of the meetings, 1831, (1832, etc.).

Lond. 1835, etc. 8vo.

— Instructions for Observers of the Aurora Borealis. *Tract. 8vo. vol. 432.*

York [1835 ?] 8vo.

— Report on the subject of a series of Resolutions adopted by the . . . Association (on the subject of Terrestrial Magnetism). [By Sir J. Herschel and H. Lloyd.] *Tract. 8vo. vol. 130.*

Lond. 1840. 8vo.

— Report of the Committee appointed for the reduction of Meteorological Observations. By Sir J. F. W. Herschel. *Tract. 8vo. vol. 130.*

Lond. 1843. 8vo.

— Report of a Committee appointed at the tenth meeting of the Association for experiments on Steam Engines. *Tract. 8vo. vol. 96.*

Lond. 1845. 8vo.

— Sixth report of the Committee, consisting of Sir J. Herschel [and others] . . . appointed to conduct the co-operation of the British Association in the system of simultaneous Magnetical and Meteorological Observations. *Tract. 8vo. vol. 130.*

Lond. 1845. 8vo.

— Report of a Committee, consisting of Sir J. Herschel [and others] . . . appointed . . . for revising the Nomenclature of the Stars. *Tract. 8vo. vol. 130.*

Lond. 1848. 8vo.

— Report from a Committee appointed . . . to enquire into the defects of the present methods of measuring and registering the tonnage of shipping, as also of marine engine power, etc. *Tract. 4to. vol. 31.*

Lond. 1857. 4to.

— Suggestions to Astronomers for the observation of the total Eclipse of the Sun on the 28th of July, 1851. Drawn up by a Committee of the . . . Association [consisting of Sir J. Herschel and others.] *Tract. 8vo. vol. 188.*

Lond. [1858.] 8vo.

— Second (third) report of Committee on steamship performance. *Tract. folio. vols. 5 and 40.*

Lond. 1860-61. folio.

— Report of the committee on uniformity of Weights and Measures. *Tract. 8vo. vol. 202.*

Nottingham, 1866. 8vo.

— First report on the Stability, propulsion, and sea-going qualities of Ships. *Tract. 8vo. vol. 206.*

Exeter, 1869. 8vo.

— Report of the Committee of the British Association on the Treatment and Utilisation of Sewage. *Tract. 8vo. vols. 203, 223, 232.*

Lond. 1871-73. 8vo.

- BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE—*continued*. Montreal Meeting, 1884. Canadian Economics; being papers prepared for reading before the Economical Section, with an introductory report. *Lond.* 1885. 8vo.
- Reports of the Committee on the Erosion of the Sea-coasts of England and Wales. *Tract.* 8vo. vol. 420. *Lond.* 1886–88. 8vo.
- Manchester Meeting, 1887. Reception room at the Owens College. Programme of local arrangements, with map of Manchester, plan of Owens College and plan of the Exhibition. *Tract.* 8vo. vol. 448. *Manchester,* 1887. 8vo.
- The President's Address and the sectional addresses, etc. *Tract.* 8vo. vol. 448. *Lond.* 1887. 8vo.
- Bath meeting, 1888. Proceedings. *Bath,* 1888. folio.
- Stars of the constellations of Bode visible in the latitude of Greenwich. *Lond.* [] folio.
- BRITISH ASSOCIATION OF GAS MANAGERS. *See* INCORPORATED GAS INSTITUTE.
- BRITISH CHAMBER OF COMMERCE, *Paris.* *See* PARIS.—*British Chamber of Commerce.*
- BRITISH COLUMBIA. [A MS. letter, describing the country with a view to a Survey for a Railway. *Tract.* 8vo. vol. 439. [1860 f] 8vo.]
- Report of the Hon. H. L. Langevin on Public Works. *Ottawa,* 1872. 8vo.
- BRITISH GUIANA. Report on the Drainage of Berbice, Alary and West Coast Districts, by H. Siccama. *Demerara,* 1879. folio.
- *Royal Agricultural and Commercial Society.* Journal. Vol. I.–IV. *Demerara,* 1882–90. 8vo.
- BRITISH IRON TRADE ASSOCIATION. Annual Reports, 1877–1890. *Lond.* 1878–91. 8vo.
- Comparative Statistics of English and foreign Railways. *Tract.* 8vo. vol. 402. [1885.] 8vo.
- English and foreign Railway Rates on iron, etc. *Tract.* 8vo. vol. 402. *Lond.* 1885. 8vo.
- BRITISH MUSEUM. Catalogue of the Harleian MSS., with indexes, etc. 4 vols. *Lond.* 1808–12. folio.
- A catalogue of the Lansdowne Manuscripts in the British Museum; with indexes of persons, places and matters. *Lond.* 1819. folio.
- A catalogue of the Manuscripts in the Cottonian Library, deposited in the British Museum. *Lond.* 1802. folio.
- Two reports on the condition, management, and affairs of the Museum. 2 vols. *Lond.* 1835–36. folio.

BRITISH RECORD SOCIETY. Prospectus, specimens of the Publications, etc., of the Society. *Tract. 8vo. vol. 508.*

Lond. 1893. 8vo.

BRITISH SHIPMASTERS AND OFFICERS PROTECTION SOCIETY. Tenth Annual Report. *Tract. 8vo. vol. 399.*

Sunderland, 1883. 8vo.

BRITISH SOCIETY OF MINING STUDENTS. Journal. Vol. vii. No. 2, etc.

Sheffield, 1882, etc. 8vo.

BRITAIN, H. Notes on the Broadlands and Rivers of Norfolk and Suffolk.

Norwich, [1887.] 8vo.

BRITTEN, B. The Armstrong Gun compared with rifled cast-iron Service Guns, etc. *Tract. 8vo. vol. 214.*

Lond. 1862. 8vo.

— Cast-iron Guns: the debate in the House of Commons, June, 1873. *Tract. 8vo. vol. 229.*

Redhill, 1873. 8vo.

— Heavy rifled Ordnance, Cast-iron and Wrought-iron. Review of the Report of the late Ordnance Select Committee, on the trial of unstrengthened rifled cast-iron service guns, under the altered circumstances now arising from the adoption of pebble powder.

Lond. 1871. 8vo.

— Muzzle-loading Rifled Ordnance. On the adaptation of the principle of the Minié rifle to cannon, and the advantages of large calibre. *Tract. 8vo. vol. 287.*

Lond. 1878. 8vo.

— Pebble Powder and cheaper Guns. *Tract. 8vo. vol. 229.*

Redhill, 1873. 8vo.

— Rifled Cast-iron Ordnance: correspondence with the War Office, etc. *Tract. 8vo. vol. 206.*

Lond. 1871. 8vo.

— Rifled Cast-iron Ordnance: the power and endurance of the smooth-bore and rifled cast-iron ordnance of the United States, employed in the late American war. *Tract. 8vo. vol. 214.*

Lond. [1872.] 8vo.

— Rifled Cast-iron Service Guns. *Tract. 8vo. vol. 214.*

Redhill, 1862. 8vo.

— Rifled Ordnance: correspondence with the War Office. *Tract. 8vo. vol. 229.*

Lond. 1873. 8vo.

— Rifled Ordnance: origin of the System now applied to all the largest guns in H.M. Service. Correspondence with the War Office respecting the invention. *Tract. 8vo. vol. 336.*

Lond. [1881.] 8vo.

— Rifled Ordnance: remarks on the Report of the Ordnance Select Committee on competitive rifled guns, etc. *Tract. 8vo. vol. 131.*

Lond. 1863. 8vo.

BRITTON, J. The Authorship of the Letters of Junius elucidated; including a biographical memoir of Lieut.-Col. I. Barré.

Lond. 1848. 8vo.

— The autobiography of J. Britton, etc. [With an account of his works, by T. E. Jones.] 2 vols.

Lond. 1849-50. 4to.

- BRITTON, J.—*continued*. Specimen of the Autobiography of J. Britton, including a tabular view of testimonials, *etc.* *Tract. 8vo. vol. 88.* *Lond. 1850. 8vo.*
- Brief Notices of the Works and Life of Thomas Cubitt. *1856. 12mo.*
- A Dictionary of the Architecture and Archæology of the Middle Ages. *Lond. 1838. 4to.*
- The History and Antiquities of the Cathedral Church of Wells; including biographical notices . . . of the bishops of the See of Bath and Wells. *Wells. 1847. 8vo.*
- The History of the ancient Palace and late Houses of Parliament at Westminster, *etc.*, 1836. *See BRAYLEY, E. W., and BRITTON, J.*
- Illustrations of the Public Buildings of London, *etc.*, 1838. *See PUGIN, A., and BRITTON, J.*
- Lecture on the Roadways of England, pointing out the peculiarly advantageous situation of Bristol . . . with remarks on the benefits likely to arise from a railroad between that port and London. *Tract. 8vo. vol. 179.* *Bristol, 1833. 8vo.*
- Memoir of the Life, Writings, and Character of H. Hatcher; with a prospectus of the autobiography of J. Britton. *Tract. 8vo. vol. 70.* *Lond. 1847. 8vo.*
- *See* BOURNE, J. C. Drawings of the London and Birmingham Railway. With . . . account by J. Britton, 1839.
- BRITTON, J. and BRAYLEY, E. W. An Account of the Parish Church of St. Pancras, London. *Tract. 4to. vol. 38.* *Lond. 1824. 4to.*
- BRITTON, T. A. A Treatise on the origin, progress, prevention, and cure of Dry Rot in timber, *etc.* *Lond. 1875. 8vo.*
- BRIX, A. F. W. Abhandlung über die Cohäsions- und Elasticitäts-Verhältnisse einiger nach ihren Dimensionen beim Bau der Hängebrücken in Anwendung kommenden Eisendräthe des In- und Auslandes. *Tract. 4to. vol. 93.* *Berlin, 1837. 4to.*
- BRIX Dr. P. W. Annalen der Telegraphie. Heft 1. *Tract. 4to. vol. 93.* *Berlin, 1872. 4to.*
- Untersuchungen über die Heizkraft der wichtigeren Brennstoffe des Preussischen Staates, *etc.* *Berlin, 1853.*
- BROADFOOT, Capt., R.E. Note on Floods in the River Indus, 1875. *See INDIA.—INDUS, River.*
- BROADHEAD, G. C., MEEK, F. B., and SHUMARD, B. F. Reports on the Geological Survey of the State of Missouri, 1855–71. *Jefferson City, 1873. 8vo.*
- BROADSTAIRS. Act for repairing or removing the Pier adjoining to the Harbour of Broadstairs and the Isle of Thanet, and an amendment of this Act. *Lond. 1805. 8vo.*

- BROCK, C. T., and Co. [For Reports on Accidents which have occurred on various occasions at Brock's Firework Factory, South Norwood, *see* NORWOOD.]
- BROCKEDON, W. Illustrations of the passes of the Alps, by which Italy communicates with France, Switzerland, and Germany. 2 vols. *London*. 1828–29. 4to.
- BROCKHAUS, F. U. Conversations-Lexikon. Zwölfte Auflage. 15 vols. *Leipzig*, 1875–79. 8vo.
- BRODIE, Sir B. C., *Bart.* Address to the Ethnological Society of London. *Tract*. 8vo. vol. 118. *London*. [1854.] 8vo.
- BRODIE, R. Rules for ranging Railway Curves with the theodolite and without tables. *Tract*. 4to. vol. 39. *London*. 1847. 4to.
- BROECK, E. VAN DEN and RUTOT, A. Un nouvel appareil portatif de sondage pour reconnaissance rapide du terrain. *Bruzelles*, 1888. 8vo.
- BROISE, —, and THIEFFRY, N. Album encyclopédique des chemins de fer. (Atlas of plates.) *Paris*, 1861. folio.
- BROKEN HILL AND DISTRICT WATER SUPPLY COMPANY. Prospectus of the Darling River and Lake Speculation scheme. *Tract*. 8vo. vol. *Sydney*, 1891. 8vo.
- BROKEN HILL PROPRIETARY COMPANY. Reports and statements of account for half-year ending 31st May, 1889. *Melbourne*, 1889. 4to.
- BROMFIELD-INGERSOLL Rock Drill Company. Bromfield-Ingersoll hand-power Rock-drill. *Leeds*, 1890. 8vo.
- BROMLEY, M. Thirty Days in the States. *Tract*. 8co. vol. 269. *London*. 1876. 8vo.
- BROOK, J. French Measure and English Equivalents. *Sheffield*, 1873. 12mo.
- BROOKER, A. Electrical Engineering for electric light artizans, *etc.*, 1890. *See* SLINGO, W., and BROOKER, A.
- BROOKES, Dr. R. The general Gazeteer, or compendious geographical dictionary. 11th edition. *Montrose*, 1801. 8vo.
- BROOKLYN LIBRARY. Catalogue. 3 vols. *Brooklyn*, 1877–80. folio.
- BROOKLYN WATERWORKS. Reports by mechanical engineers on trials of duty made in 1857 and 1859, upon the Brooklyn, Hartford, Belleville, and Cambridge pumping-engines. *Tract*. 8vo. vol. 326. *New York*, 1860. 8vo.
- Reports on Pumping Engines. *Tract*. 8vo. vol. 326. *New York*, 1862. 8vo.
- BROOKS, C. P. Cotton Manufacturing. *London*. 1888. 8vo.
- BROOKS, F. Comparative size of metric and old units with reference to convenience and report of Committee on Weights and Measures. *Tract*. 8vo. vol. 427. *New York*, 1886. 8vo.
- The Division of the Circle. *Tract*. 8vo. vol. 414. [Boston ?] 1878. 8vo.

- BROOKS, F.—*continued*. The Division of the Day. *Tract*. 8vo. vol. 414. [Boston ?] 1878. 8vo.
- BROOKS, M., and STEWARD, J. E. Some experiments upon the "Otto" gas engine. *Tract*. 8vo. vol. 468. 1883. 8vo.
- BROOKS, S. H. Rudimentary treatise on the Erection of Dwelling-houses, *etc.* Lond. 1868. 8vo.
- BROOKS, W. A. Euphrates: the Road to the East. *Tract*. 8vo. vols. 221 and 442. Lond. [1857 ?] 8vo.
- Honduras and the Inter-Oceanic Railway. *Tract*. 8vo. vol. 256. Lond. 1874. 8vo.
- The Navigation of the river Hooghly, and the proper means to be adopted for its amelioration, *etc.* *Tract*. 8vo. vol. 154. Lond. [1840 ?] 8vo.
- Observations and reports on the Channel Refuge-harbours and naval stations. *Tract*. 8vo. vol. 102. Gateshead, 1856. 8vo.
- On the cause of the formation of Bars at the mouths of Rivers. *Tract*. 8vo. vol. 135. Lond. [1863.] 8vo.
- On the improvement of Tidal Navigations and Drainages. *Tract*. 8vo. vol. 498. (From Min. Proc. Inst. C.E.) Lond. 1854. 8vo.
- Proposed Asylum Harbour and naval station at Redcar, on the coast of Yorkshire, *etc.* *Tract*. 8vo. vol. 13. Lond. 1834. 8vo.
- Remarks on the proposed Spithead Forts in connection with the advanced sea works advocated by Mr. W. A. Brooks, C.E., for the defence of Portsmouth and the adjacent anchorage. *Tract*. 8vo. vol. 132. Lond. 1861. 8vo.
- Reply to the letter of Mr. Calver on the Tyne improvement. *Tract*. 8vo. vol. 135. Gateshead, 1852. 8vo.
- Report on the formation of an Asylum Harbour at Redcar, on the south side of the Tees Bay. *Tract*. 4to. vol. 34. Stockton-on-Tees, 1832. 4to.
- Report on the general Improvement of the Navigation of the river Tyne. *Tract*. 8vo. vol. 71. Newcastle, 1843. 8vo.
- To the members of the Ship-owners' Society. Letter relating to Port William at Redcar. *Tract*. folio. vol. 28. Redcar, 1838. folio.
- Treatise on the Improvement of the Navigation of Rivers, *etc.* Lond. 1841. 8vo.
- BROOM, G. J. C. Short history of the Wolverhampton Sewerage scheme, with a few hints on the ventilation of house drainage. *Tract*. 8vo. vol. 297. Wolverhampton, 1878. 8vo.
- BROSIUS, J., and KOCH, R. Das Lokomotivführer Examen-Frage-Buch, *etc.* *Tract*. 8vo. vol. 383. Wiesbaden, 1879. 8vo.
- Die Schule des Lokomotivführers, *etc.* Wiesbaden, 1879. 8vo.
- BROTHERTON, W. The Olive, the Rape, and the Flax: their products and their cultivation. *Tract*. 8vo. col. 115. Lond. 1857. 8vo.

- BROUGH, B. H. *Cantor Lectures on Mine Surveying, etc.*
London. 1892. 8vo.
- *A treatise on Mine-surveying.* *London.* 1888. 8vo.
- *Use of Cement in Shaft-sinking, etc. Tract.* 8vo. vol. 525.
London. 1893. 8vo.
- *Use of the Magnetic Needle in exploring for iron ore. Tract.* 8vo.
 vol. 443. [1887.] 8vo.
- BROUGHAM, *Lord.* *Practical observations upon the Education of
 the People, etc. Tract.* 8vo. vol. 69. *London.* 1825. 8vo.
- *Tracts Mathematical and Physical.* *London.* 1860. 8vo.
- BROUGHAM, *Lord,* and ROUTH, E. J. *Analytical view of Sir
 Isaac Newton's Principia.* *London.* 1855. 8vo.
- BROUGHTON COPPER COMPANY. *Weight of seamless Copper
 Tubes. Tract.* 8vo. vol. 263. *Manchester,* [1874?] 8vo.
- BROUGHTON, F. *The Inter-State Commerce Bill. Practical objec-
 tions to some of its features. Tract.* 8vo. vol. 435. 1886. 8vo.
- BROUGHTON, T. *Appliances for erecting all classes of Concrete
 Buildings, walling, etc. Tract.* 8vo. vol. 475. *London.* 1876. 8vo.
- BROUGHTON, U. H. *The Shone Hydro-pneumatic system of Sewer-
 age. Tract.* 8vo. vol. 444. *New York,* 1887. 8vo.
- BROUN, J. A. *On the Combined Motions of the Magnetic Needle,
 and the Aurora Borealis. Tract.* 8vo. vol. 188.
[Edinburgh, 1850?] 8vo.
- *Report to Gen. Sir T. M. Brisbane, Bart., on the completion
 of the publication, in the Transactions of the Royal Society of
 Edinburgh, of the observations made in his Observatory at
 Makerstoun. Tract.* 4to. vol. 39. *Edinburgh,* 1850. 4to.
- BROUN, J. A., and RUSSELL, E. *Observations in Magnetism and
 Meteorology, made at Makerstoun, in Scotland, in the Observatory
 of Gen. Sir T. M. Brisbane, Bart., in 1841–46. 3 vols.*
Edinburgh, 1845–49. 4to.
(Trans. of the Royal Society of Edinburgh.)
- BROUN, T. *Manual of the New Zealand Coleoptera. 7 pt. in 3 vols.*
[Colonial Museum and Geological Survey Department.]
Wellington, 1880–93. 8vo.
- BROUZET, —. *Mémoire à messieurs les membres du conseil muni-
 cipal de Nismes. [Relative to a scheme for Waterworks.] Tract.*
 4to. vol. 34. *Nismes,* 1840. 4to.
- BROWN ANIMAL SANATORY INSTITUTION. *Man's Injustice
 to Animals: the Brown Animal Sanatory Institution, etc. 2nd
 edition.* *London.* 1888. 8vo.
- — 3rd edition. *With additions.* *London.* 1888. 8vo.
- BROWN, A. *On Dredging and Dredge Plant. Tract.* 8vo. vol. 251.
Glasgow, 1874. 8vo.

- BROWN, A. On Dredging, and Dredging Appliances. *Tract.* 8vo. vol. 479. *Glasgow*, 1889. 8vo.
- A practical treatise on the construction of the Power-loom and the Art of Weaving. 5th edition, revised. *Dundee*, 1887. 8vo.
- BROWN, A., and BOOBBYER, P. Meteorological observations, Nottingham, 1889–(90, *etc.*) [*Nottingham*,] 1889, *etc.* 8vo.
- See NOTTINGHAM. The Meteorology of Nottingham for 1891. Observations by Arthur Brown and P. Boobyer, 1892.
- BROWN, A., and WHITELEGGE, B. A. Meteorological Observations, Nottingham, 1887 and 1888. *Nottingham*, 1887–88. 8vo.
- BROWN, A. B. See PERIODICAL PUBLICATIONS. Engineering Facts and Figures : edited by A. B. Brown, 1863–68. (Vol. for 1863 of the 2nd edition.)
- BROWN, C. The speech of C. Brown delivered at the public meeting held at Norwich, Sept. 1818, together with Mr. Cubitt's report. *Tract.* 8vo. vol. 5. *Norwich*, 1818. 8vo.
- BROWN, F. Description of patent metallic Zinc Colours, prepared from the zinc of the Vieille Montagne. *Tract.* 4to. vol. 40. (Lithographed.) [1851.] 4to.
- BROWN, G. P. Sewer-gas and its Dangers. *Chicago*, 1881. 8vo.
- BROWN, H. Railway Accidents, Railway Amalgamation, and Railway Management, in a series of letters to *The Morning Chronicle*, *etc.* *Tract.* 8vo. vol. . *London*. 1853. 8vo.
- BROWN, H. P. The comparative Danger to Life of the alternating and continuous Electrical Currents. *Tract.* 8vo. vol. 479. *New York*, 1889. 8vo.
- Electrical Distribution of heat, light, and power. With partial list of deaths from electrical lighting apparatus, and address by J. M. Mitchell, *etc.* *Tract.* 8vo. vol. 490. *New York*, 1889. 8vo.
- BROWN, H. T. Five hundred and seven Mechanical Movements, embracing all those which are most important in dynamics, hydraulics, and hydrostatics. . . . 16th edition. *New York*, 1888. 8vo.
- BROWN, H. Y. L. Map of part of the colony of Western Australia, showing the progress of the Geological Survey, from August, 1870, to June, 1872. *Melbourne*, 1872. 8vo.
- Report on journey from Warrina to Musgrave Ranges. See SOUTH AUSTRALIA.—[*Geology*.] 1890. folio.
- BROWN, J. E. A practical treatise on Tree Culture in South Australia. 3rd edition. *Adelaide*, 1886. 8vo.
- BROWN, JAMES. The Forester : or, a practical treatise on the planting, rearing, and general management of forest trees. *Edinburgh and London*. 1871. 8vo.
- BROWN, JAMES T. Photometry and Gas Analysis. *London*. [1883.] 8vo.

- BROWN, JOHN, *M. Inst. C.E.* Description of some Borings on the Clifton Estate, and of the sinking at Clifton Colliery, Nottingham. *Tract. 8vo. vol. 324.* *Lond.* 1881. 8vo.
- BROWN, JOHN, *of Barnsley.* On cast iron Tubing used in sinking shafts. *Tract. 8vo. vol. 136.* [*Lond.* 1861.] 8vo.
- BROWN, JOHN A. The Water-bearing Strata of the Ealing District. *Tract. 8vo. vol. 407.* *Ealing,* 1882. 8vo.
- BROWN, JOHN C. Hydrology of South Africa ; or, details of the former hydrographic condition of the Cape of Good Hope, *etc.* *Lond.* 1875. 8vo.
- Pine Plantations on the Sand-wastes of France. *Edinburgh,* 1878. 8vo.
- Reboisement in France ; or, records of the re-planting of the Alps, the Cevennes, and the Pyrenees with trees, herbage, and bush, *etc.* *Lond.* 1876. 8vo.
- The Schools of Forestry in Europe. *Tract. 8vo. vol. 288.* *Edinburgh,* 1877. 8vo.
- Water Supply of South Africa, and facilities for the storage of it. *Edinburgh,* 1877. 8vo.
- BROWN, M. W. A further attempt for the Correlation of the Coal Seams of the carboniferous formation of the North of England, *etc.* *Tract. 8vo. vol. 447.* *Newcastle-upon-Tyne,* 1887. 8vo.
- On a form of Apparatus for the rapid determination of specific gravities of bodies. *Tract. 8vo. vol. 449.* *Newcastle-upon-Tyne,* 1887. 8vo.
- BROWN, R. H., *Major.* The Fayûm and Lake Mœris. With . . . illustrations from photographs by the author. *Lond.* 1892. 4to.
- BROWN, S. S. A lay Lecture on Sanitary Matters. *Tract. 8vo. vol. 223.* *Clifton,* 1871. 8vo.
- BROWN, Sir SAMUEL, *Commander R.N.* Description of a bronze or cast-iron columnal Lighthouse, with references to a model of one-fourth the full size, designed for the Wolf Rock, situated between the island of Scilly and the Land's End, *etc.* *Tract. 4to. vol. 70.* *Edinburgh,* 1836. 4to.
- Private Report of the present state of Westminster Bridge, *etc.* *Tract. 8vo. vol. 264.* *Brighton,* 1836. 8vo.
- Reports and observations on his patent Iron Cables. *Tract. 8vo. vol. 15.* *Liverpool,* 1816. 8vo.
- Specification of a Bridge of suspension over the river South Esk, at Montrose. *Tract. 4to. vol. 13.* *Montrose,* 1824. 4to.
- BROWN, SAMUEL, *M. Inst. C.E.* Report on great storm of 29th and 30th May, 1889, Hong Kong. *Tract. folio. vol. 45.* *Hong Kong,* 1889. folio.
- Three months in Cyprus during the winter of 1878-79. *Tract. 8vo. vol. 310.* *Lond.* 1879. 8vo.

- BROWN, T. Questions on subjects connected with the Marine Steam-engine, *etc.*, 1857. See MAIN, D. D., and BROWN, T.
- BROWN, T. F. Paper on the Coal Question read before the . . . British Association, Cardiff, 1891. *Cardiff*, 1891. 8vo.
- BROWN, W. Decimal Coinage: a letter to Francis Shand, Chairman of the Liverpool Chamber of Commerce . . . 2nd edition. *Tract*. 8vo. vol. 119. *Lond.* 1854. 8vo.
- BROWN, W. L. Manual of Assaying Gold, Silver, Copper, and Lead Ores. Revised by A. B. Griffiths. *Lond.* 1890. 8vo.
- BROWNE, A. J. JUKES-. See JUKES-BROWNE, A. J.
- BROWNE, C. O., *Captain, R.A.* Ammunition: a descriptive treatise on the different projectiles, charges, fuzes . . . at present in use for land and sea service, *etc.* 2 pt. *Lond.* 1870. 8vo.
(Part I missing.)
- Armour and its Attack by Artillery. *Woolwich*, 1887. 8vo.
- BROWNE, H. J. The higher branch of Science or Materialism refuted by facts. *Tract*. 8vo. vol. . *Melbourne*, 1884. 8vo.
- BROWNE, J., *Major*. Proposition for establishing a Balloon Railway across the Sahara desert, *etc.* *Tract*. 8vo. vol. 89. *Lond.* 1850. 8vo.
- BROWNE, J. H. B. Water Supply. *Lond.* 1880. 8vo.
- See NEVILLE, R., and MACNAMARA, W. H. Reports of Cases decided by the Railway Commissioners. [Vols. 4-7 by J. H. B. Browne and W. H. Macnamara, 1874.]
- BROWNE, R. E. Water Meters. *New York*, 1885. 12mo.
- BROWNE, R. G. M. Astronomical Geology, *etc.* *Lond.* 1865. 8vo.
- BROWNE, W. R. On Robert's patent Communicator for railway trains. *Tract*. 8vo. vol. 256. *Bridgewater*, 1875. 8vo.
- BROWNING, H. B. An Algebra of Ratios, with a theory of exponents, and the propositions of the fifth book of Euclid easily and symbolically deduced. *Stamford*, 1849. 8vo.
- A proposed System for the more ready and correct valuation of carpenters' and joiners' works, as depending on the prices and quantities of materials used, *etc.* *Stamford*, 1847. 8vo.
- BROWNLOW, H. A. Enquiry into the possibility of the use of Wind Power for irrigation. *Tract*. 8vo. vol. 514. *Roorkee*, 1877. 8vo.
- BRUCE, A. B. The Life of W. Denny, ship-builder, Dumbarton. *Lond.* 1888. 8vo.
- See RIBES, S. To the Rev. A. B. Bruce. Answer to . . . his book . . . "The Life of William Denny," *etc.*, 1889.
- BRUCE, Sir G. B. Memorandum on Street Railways. *Tract*. 8vo. vol. 179. *Westminster*, 1860. 8vo.
- BRUCE, R. G., *Lieut., R.E.* Considerations on the Establishment of the British Engineers. *Lond.* 1768. 8vo.

- BRUCE, W. D. An account of the Works constructed in the Port of Calcutta, between 1870 and 1880. *Tract.* 4to. vol. 120.
Lond. [] 4to.
- BRUCKMANN, A. E. On negative Artesian Wells, or absorbing bored wells, as a means of draining lands, farms, &c. *Tract.* 8vo. vol. 118. [1855?] 8vo.
- BRUECKMANN, E. G. M. Roentgen, der Erfinder der Mehrfach-Expansions-Dampfmaschine. *Tract.* 4to. vol. 115.
Berlin, 1892. 4to.
- BRUÈRE, —. Mémoire sur les assainissements et consolidations de talus. *Tract.* 8vo. vol. 117. Paris, 1858. 8vo.
- BRUFF, P. A treatise on Engineering Field-work . . . 2nd edition. Lond. 1840. 8vo.
- Report, and supplementary Report, on the Navigation of the River Colne, with a proposition for constructing a ship canal from Wivenhoe to Colchester, etc. *Tract.* 8vo. vol. 66.
Lond. and Colchester, 1842. 8vo.
- BRUFF, W. F. The West Wisconsin Railway, U.S. Second annual report to the Trustees for the Bondholders, etc. *Tract.* folio. vol. 9. Lond. 1871. folio.
- BRUIGNAC, A. D. DE. Recherches sur la navigation aérienne. *Tract.* 8vo. vol. 314. Paris, 1875. 8vo.
- BRÜLL, A. Études théoriques et pratiques sur la nitroglycérine et la dynamite. *Tract.* 8vo. vol. 312. Paris, 1875. 8vo.
- Mémoire sur la chaîne flottante des mines de fer de Dico, Santander. *Tract.* 8vo. vol. 466. Paris, 1884. 8vo.
- Mémoire sur les pompes centrifuges Farcot de l'usine élévatoire de Khatatbeh. *Tract.* 8vo. vol. 435. [Paris, 1887.] 8vo.
- BRUMELL, C. A preliminary Report on the Sea Embankments of British Guiana. *Tract.* 8vo. vol. 321. Westminster, 1858. 8vo.
- BRUN, A. F. Traité pratique des opérations sur le terrain, comprenant les traces et les nivellements nécessaires à la construction des chemins de fer, routes et canaux. *Tract.* 8vo. vol. 223.
Paris, 1860. 8vo.
- BRUNEEL, O., and BRAUN, E. Le canal de Terneuzen. Gand et ses installations maritimes. *Tract.* folio. vol. 30.
Gand, 1881. folio.
- BRUNEL, I. The life of I. K. Brunel, civil engineer.
Lond. 1870. 8vo.
- BRUNEL, I. K. Railway Eccentrics. Inconsistencies of men of genius exemplified in the practice and precept of I. K. Brunel, and in the theoretical opinions of C. A. Saunders. [A pamphlet on the Gauge Question.] *Tract.* 8vo. vol. 260. Lond. 1846. 8vo.
- View of the Clifton suspension bridge (proposed design). [An engraving presented by Brunel to Maria Edgeworth about 1830, and by her to the late J. Bell: with a letter from Miss Edgeworth to Mr. Bell, and explanatory letter by James Bell, M. Inst. C.E.]

- BRUNEL, Sir M. I. An Explanation of the Works of the Tunnel under the Thames from Rotherhithe to Wapping. *Lond.* 1838. 4to.
- A letter to the Proprietors of the Thames Tunnel. *Tract.* 8vo. vol. 492. *Lond.* 1829. 8vo.
- A new plan of Tunnelling, calculated for opening a roadway under the Thames. *Tract.* 8vo. vol. 15. *Lond.* 1823. 8vo.
- Particulars of some Experiments on the mode of binding Brick Construction. *Tract.* 4to. vol. 71. [*Lond.*] 1836. 4to.
- The Thames Tunnel: an exposition of facts and circumstances relating to the tunnel under the Thames, etc. *Lond.* 1833. 4to.
- BRUNET, F. Dimensions des fers qui doivent former la coupole de la Halle aux grains, calculées d'après la composition de M. Bélanger, etc. *Paris*, 1809. folio.
- BRUNFANT, J. Étude sur les voies de transport en France. *Paris*, 1876. 8vo.
- BRUNINGS, C. Antwoord op de vraag . . . is de algemeene grondregel der hydrometrie, dat de grootste diepten steeds op de naauwste plaatsen der Rivieren bevonden worden, insgelyks toepasselyk op de zeeboezems, gelyk het ye, alwaar de stroom door de getyen veroorzaakt word? *Tract.* 8vo. vol. 162. [1780?] 8vo.
- Verhandeling over de snelheid van stroomend water, en de middelen, om dezelve op allerlei diepten te bepaalen. *Tract.* 8vo. vol. 162. [1798?] 8vo.
- Abhandlung über die Geschwindigkeit des fliessenden Wassers und von den Mitteln dieselbe auf allen Tiefen zu bestimmen, etc. *Frankfurt am Mayn*, 1798. 4to.
- BRUNLEES, J. On the construction of the Sea Embankments across the Estuaries Kent and Leven, in Morecambe Bay, for the Ulverstone and Lancaster Railway. *Tract.* 8vo. vol. 502. (From Min. Proc. Inst. C.E.) *Lond.* 1855. 8vo.
- Report on the proposed Wet Docks at Whitehaven. *Tract.* folio. vol. 27. *Westminster*, 1870. folio.
- [Report] to the directors of the Bristol Port and Channel Dock Company [re site for proposed docks at Portishead]. *Tract.* folio. vol. 27. *Westminster*, 1871. folio.
- BRUNLEES, J., and WEBB, E. B. Proposed Ship-railway across the Isthmus of Suez. *Tract.* 8vo. vol. 112. *Lond.* 1859. 8vo.
- BRUNNER FRÈRES. Omnibus à vapeur: résultats de l'exploitation sur le chemin de fer régional de Lausanne à Echaltens. *Tract.* 8vo. vol. 283. *Zurich*, 1877. 8vo.
- BRUNTON, Rev. A. Prayer for the use of those employed in the Lighthouse Service of Scotland. *Tract.* 4to. vol. 70. [1820?] 4to.
- BRUNTON, R. A Compendium of Mechanics, etc. *Glasgow*, 1824. 8vo.

- BRUNTON, R. H. Public Works, Japan. *Tract.* 8vo. vol. 267.
Yokohama, 1875. 8vo.
- BRUNTON, T., MIDDLETON and Co. Observations on Chain Cables,
etc. *Tract.* 8vo. vol. 15. Lond. 1815. 8vo.
- BRUNTON, T. L. Apparatus for Physiological Chemistry. [Science
Lectures at South Kensington, vol. 2.] Lond. 1879. 8vo.
- BRUNTON, W. An Address to the shareholders of the Punjab Railway
Company. *Tract.* 8vo. vol. 123. Lond. 1861. 8vo.
- Machinery and Tools at the end of 18th century. MS.
[1850?] 4to.
- On the Ventilation of Coal Mines. *Tract.* 8vo. vol. 97.
Lond. 1849. 8vo.
- BRUSCHETTI, G. Delle acque d'irrigazione nella Lombardia.
Tract. 8vo. vol. 118. [1847.] 8vo.
- Delle macchine locomotive e stazionarie ad uso di motore pei
trasporti celeri sopra le vie di terra e di acqua in Lombardia.
Tract. 8vo. vol. 62. Milano, 1840. 8vo.
- Istoria dei progetti e delle opere per la navigazione interna del
Milanese. Milano, 1821. 4to.
(With autograph letters from the Author and Signor C. Parea to Col. F. Page.)
- — 2nd edition. 2 vols. 4to. Milano, 1830. 4to.
- Storia dei progetti e delle opere per l'irrigazione del Milanese.
Lugano, 1834. 4to.
- BRUSSELS.—*Concours International de 1881, ayant pour objet le
meilleur ouvrage sur les moyens d'améliorer les ports établis sur les
côtes basses et sablonneuses, comme celles de la Belgique.* Rapport
du Jury. *Tract.* 8vo. vol. 451. Bruxelles, 1887. 8vo.
- *Exhibition of 1887.* Grand Concours International des Sciences
et de l'Industrie et Exposition Universelle Internationale. [Rules
and Regulations.] *Tract.* folio. vol. 41. Brussels, 1887. folio.
- *Institut Cartographique Militaire.* Compte rendu des opérations
de la Commission instituée . . . pour étalonner les règles qui ont
été employées à la mesure des bases géodésiques Belges.
Bruxelles, 1855. 4to.
- Triangulation du Royaume de Belge. (Supplément.) Pt. 1.
Bruxelles, 1867-78. 4to.
- Nivellement général du Royaume de Belgique. Nivellement de
base. *Tract.* 4to. vol. 95. Bruxelles, 1879. 4to.
- Flandre occidentale, 1^{re} cahier. *Tract.* 4to. vol. 95.
Bruxelles, 1879. 4to.
- Communications. *Tract.* 8vo. vol. 40. Bruxelles, 1879. 8vo.
- Grandeur et forme de la terre déterminées par les mesures d'arcs.
Tract. 8vo. vol. 401. Bruxelles, 1876. 8vo.
- Grandeur et forme de la terre déterminées par les oscillations du
pendule. *Tract.* 8vo. vol. 401. Bruxelles, 1876. 8vo.

- BRUSSELS.—*Institut Cartographique Militaire—continued.* Notice sur l'association internationale de Géodésie et les travaux géodésiques du dépôt de la Guerre de Belgique. *Tract.* 8vo. vol. 401. *Bruxelles*, 1876. 8vo.
- La géographie à l'exposition universelle de 1878 (Belgique, France). *Tract.* 8vo. vol. 398. *Bruxelles*, 1878. 8vo.
- Tableau d'assemblage des feuilles de la carte de Belgique. *Bruxelles*, 1879. folio.
- Le Calendrier. *Tract.* 8vo. vol. . *Bruxelles*, 1879. 8vo.
- *Maritime Conference*, 1853. Maritime Conference held at Brussels for devising an uniform system of meteorological observations at sea. [Proceedings.] *Tract.* 4to. vol. 45. *Brussels*, 1853. 4to.
- *Musée de l'Industrie.* Bulletin. 84 vols. (No more published.) *Bruxelles*, 1841–83. 8vo.
- *Observatoire Royal.* Bulletin météorologique. *Bruxelles*, 1887. folio.
- *Société Scientifique.* Annales. 12 vols. *Bruxelles*, 1877–88. 8vo.
- BRUSH, C. T. The Brush System of Electric Lighting. *Tract.* 8vo. vol. 308. *Cleveland*, 1879. 8vo.
- BRUTI, O. R. See REVESI BRUTI, O.
- BRUYÈRE, L. Études relatives à l'art des constructions, etc. 2 vols. *Paris*, 1823–28. folio.
- BRYAN, C. W. Theory and practice of Framed Structures. 1893. See JOHNSON, J. B., BRYAN, C. W., and TURNEAURE, C. E.
- BRYAN, W. B. Report to the Sewerage Committee of the corporation of Burnley, on the intercepting and outfall works, etc. *Tract.* 4to. vol. 81. *Burnley*, 1878. 4to.
- BRYAS, C. DE. Exposé des travaux de drainage et de dessèchement exécutés dans sa propriété du Taillan. *Tract.* 8vo. vol. 217. *Paris*, 1855. 8vo.
- BRYCE, J. Geology of Clydesdale and Arran. *Lond. and Glasgow*, 1859. 8vo.
- BRYCE, J., and JOHNSTON, K. The Library Cyclopædia of Geography. *Lond. and Glasgow*, 1880. 8vo.
- BRYNMALLY COLLIERY. Report on an Accident at the Pendwill Pit of the Brynmally Colliery at Moss on the 13th March, 1889; by H. Thomas. *Lond.* 1889. folio.
- BRYSON, A., Jr. The New York and Brooklyn Bridge. Plans of the Rapid Transit Cable Company, etc. *Tract.* 8vo. vol. 492. 1890. 8vo.
- The Return of Power in Electric and Cable Traction. *Tract.* 8vo. vol. 490. *New York*, 1889. 8vo.
- BRYSON, J. M. Remarks upon the Drainage of London, etc. *Tract.* 8vo. vol. 105. *Lond.* 1858. 8vo.

- BUCCLEUCH, *Duke of*. The Duke of Buccleuch and Queensberry, K.G., and the Metropolitan Board of Works. [Concerning an arbitration award respecting property on the Thames Embankment.] [Lond. 1870.] 4to.
- BUCHAN, A. Handy-book of Meteorology. 2nd edition. *Edinburgh and Lond.* 1868. 8vo.
- The Temperature of the British Islands. *Tract.* 8vo. vol. 212. *Edinburgh* [1871.] 8vo.
- BUCHAN, H. J. Established Compositions for the bottoms of . . . vessels. 1870. See PEACOCK, G., *Capt.*, and BUCHAN, H. J.
- BUCHAN, J. H. The Real del Monte Mining Company, Mexico. *Tract.* 8vo. vol. 298. *Lond.* 1855. 8vo.
- BUCHAN, W. P. Plumbing: a text-book to the practice of the art or craft of the plumber, *etc.* *Lond.* 1876. 8vo.
- BUCHANAN, G. Report on the erecting of low-water landing-places on the coast between Kinghorn and Pettycur, with estimates. *Tract.* 8vo. vol. 75. *Edinburgh*, 1827. 8vo.
- Report on the present state of the wooden bridge at Montrose, and the practicability of erecting a suspended bridge of iron in its stead. *Tract.* 4to. vol. 13. *Montrose*, 1824. 4to.
- BUCHANAN, Dr. G. Electricity in Surgery; Faure's storage battery, also Swan's electric light. *Tract.* 8vo. vol. 329. *Glasgow*, 1881. 8vo.
- Report on the schemes for the Lower Thames Valley Drainage, submitted to the joint board, October 2nd, 1878. MS. 1878. folio.
- Report to the Local Government Board on an epidemic of Enteric Fever at Croydon in 1875. *Tract.* folio. vol. 21. *Lond.* 1876. folio.
- BUCHANAN, J. Manual of the Indigenous Grasses of New Zealand. [*Colonial Museum and Geological Survey Department.*] *Wellington*, 1880. 8vo.
- BUCHANAN, J. Y. The Exploration of the Gulf of Guinea. *Tract.* 8vo. vol. 454. [*Edinburgh*,] 1888. 8vo.
- BUCHANAN, R. Essay on the Shafts of Mills. *Lond.* 1814. 8vo.
- A Treatise on the economy of Fuel and management of Heat, *etc.* *Glasgow*, 1815. 8vo.
- Practical essays on Mill Work and other Machinery, *etc.* 2nd edition. 2 vols. *Lond.* 1823. 8vo.
- — 3rd edition.. 2 vols. Revised . . . by G. Rennie. *Lond.* 1841. 8vo.
- — Supplement. By G. Rennie. *Lond.* 1842. 8vo.
- BUCHANAN, W. M. Notes towards a solution of the Smoke Nuisance question. *Tract.* 8vo. vol. 111. *Glasgow*, 1852. 8vo.

- BUCHETTI, J. Guide pour l'essai des machines à vapeur, et la production économique de la vapeur. *Paris*, 1884. 8vo.
- Les machines à vapeur actuelles. (Atlas of plates.) *Paris*, 1881–83. 8vo. and 4to.
- — Supplément. (Atlas of plates.) *Paris*, 1888. 8vo. and 4to.
- BUCHHOLTZ, F. H. Die Kriegstelegraphie. *Tract.* 8vo. vol. 308. *Berlin*, 1877. 8vo.
- BÜCHNER, Dr. L. Force and Matter: or, principles of the natural order of the Universe, with a system of morality based thereon. Edited by J. F. Collingwood. Third English edition. *Lond.* 1881. 8vo.
- BUCK, A. H. A Treatise on Hygiene and Public Health. 2 vols. *Lond.* 1879. 8vo.
- BUCK, C. On the beauties, harmonies, and sublimities of Nature. 4 vols. *Lond.* 1821. 8vo.
- BUCK, G. W. A practical and theoretical Essay on oblique Bridges. *Lond.* 1839. 4to.
- — 3rd edition, revised by J. H. W. Buck. . . . With description to diagrams for facilitating the construction of oblique bridges, by W. H. Barlow. *Lond.* 1880. 8vo.
- BUCK, J. H. W. The Construction of large Tunnel Shafts. *Lond.* 1880. 8vo.
- General Earthwork table. *Lond.* 1885. folio.
- Graphic table for facilitating the computation of the Weights of Wrought Iron and Steel Girders. *Lond.* [1883.] folio.
- BUCK, L. L. Report on the renewal of Niagara Suspension bridge, 1880. *Tract.* 8vo. vol. 344. *New York*, 1881. 8vo.
- BUCKHAM, E. Borough of Ipswich. Information obtained from other towns as to steam Road Rolling. *Tract.* folio. vol. 28. *Ipswich*, 1879. folio.
- Information obtained from other towns as to ventilating and flushing Sewers. *Tract.* folio. vol. 33. *Ipswich*, 1884. folio.
- BUCKLAND, W. Address to the mayor and members of the Artesian Well Committee of Southampton, July 27, 1844. *Tract.* 8vo. vol. 78. *Southampton*, 1844. 8vo.
- Geology and Mineralogy considered with reference to Natural Theology. See BRIDGEWATER TREATISES, No. 6. 1837.
- — 2nd edition. 1837. 8vo.
- A sermon preached in Westminster Abbey, on Easter Sunday, April 23, 1848, on the occasion of the re-opening of the choir, etc. *Tract.* 8vo. vol. 85. *Lond.* 1848. 8vo.
- BUCKLE, J. Useful Information for Bricklayers, being an improved method for setting out gauged arches. *Bradford*, [1886.] 4to.
- BUCKLER, T. H. [A Letter on the necessity of a Communication between the Atlantic and Pacific Oceans] to the Right Hon. Hugh C. E. Childers, M.P. *Tract.* 8vo. vol. 483. *Paris*, 1886. 8vo.

- BUCKLER, T. H.—*continued*. Darien v. the Suez Canal. 1876.
See DARIEN CANAL.
- BUCKLEY, A. B. A short History of Natural Science.
Lond. 1876. 8vo.
- BUCKLEY, R. B. Irrigation Works in India and Egypt.
Lond. 1893. 8vo.
- The Irrigation Works of India and their financial results.
Lond. 1880. 8vo.
- BUCKLEY RAILWAY. Report by the Board of Trade . . . on the
 Classification of Merchandise Traffic and Schedule of Maximum
 Rates, *etc.* *Lond.* 1891. folio.
- BUCKMAN, J., and NEWMARCH, C. H. Illustrations of the remains
 of Roman Art in Cirencester, the site of ancient Corinium.
Lond. 1850. 4to.
- BUCKNALL, H. L. A Search for Fortune: the autobiography of
 a younger son. *Lond.* 1878. 8vo.
- BUDAN DE BOISLAURENT, F. D. Nouvelle méthode pour la
 résolution des équations numériques d'un degré quelconque, *etc.*
Tract. 4to. vol. 77. *Paris*, 1822. 4to.
- BUDDLE, J. An account of the Explosion which took place in
 Jarrow colliery, August 3, 1830. *Tract.* 4to. vol. 3.
Newcastle, 1831. 4to.
- The first Report of a Society for preventing Accidents in Coal
 Mines, *etc.* *Tract.* 8vo. vol. 78. *Newcastle*, 1814. 8vo.
- Narrative of the explosion which occurred at Wallsend colliery
 on the 18th June, 1835. *Tract.* 4to. vol. 80.
[Newcastle,] 1835. 4to.
- Synopsis of the several seams of Coal in the Newcastle district.
Tract. 4to. vol. 3. *Newcastle*, 1831. 4to.
- BUEL, R. H. The Cadet Engineer; or, steam for the student. 1865.
See LONG, J. H., and BUEL, R. H.
- Safety Valves. *New York*, 1875. 12mo.
- BUELL, G. P. General report made to the board of the Texas
 Pacific Railroad. *Tract.* 8vo. vol. 234. *New York*, 1871. 8vo.
- BUELNA, E. Compendio historico geografico y estadistico del estado
 de Sinaloa. *Tract.* 8vo. vol. 86. *Mexico*, 1877. 8vo.
- BUENOS AYRES. Annuaire statistique . . . 1882.
Buenos Ayres, 1883. 8vo.
- Censo general de la provincia de Buenos Aires . . . 1881.
Buenos Aires, 1883. folio.
- City Improvements. Correspondence between the Special Com-
 mission in London and Local Commission at Buenos Ayres. *Tract.*
 8vo. vol. 236. *Buenos Ayres*, 1874. 8vo.
- El clima de Buenos Aires. [*Annales de la oficina meteorologica*
Argentina. By B. A. Gould.] *Buenos Aires*, 1878. 8vo.

BUENOS AYRES—*continued*. Debates de la Convencion constituyente de Buenos Aires, 1870-1873, *etc.* 2 vols.

Buenos Aires, 1877. 8vo.

— Informe sobre la futura capital de la provincia. *Tract.* 8vo. vol. 476.

Buenos Aires, 1881. 8vo.

— Mensage à la honorable legislatura referente à la capital de la provincia. *Tract.* 8vo. vol. 476.

Buenos Ayres, 1882. 8vo.

— Obras de salubridad . . . Reglamento para la construccion y funcionamiento de las obras domiciliarias de desagüe y provision de agua en el interior de los edificios. [With MS. translation.] *Tract.* 4to. vol. 108.

Buenos Aires, 1887. 8vo.

— *Biblioteca Nacional*. Catalogo metódico. Tomo primero. Ciencias y artes.

Buenos Aires, 1893. 8vo.

BUFF, H. Familiar letters on the Physics of the Earth, *etc.*

Lond. 1851. 8vo.

BUFFALO. Some Things in and about Buffalo.

1884. 8vo.

BUFFON, N. DE. Cours d'agriculture et d'hydraulique agricole, comprenant les principes généraux de l'économie rurale, *etc.* 3 vols. in 4 parts.

Paris, 1852-58. 8vo.

— Hydraulique agricole. Des submersions fertilisantes, *etc.* (Atlas of plates.)

Paris, 1867. 4to. and 8vo.

— Hydraulique agricole. Applications. Des canaux d'irrigation de l'Italie septentrionale, *etc.* 2nd edition. 2 vols. (Atlas of plates.)

Paris, 1861-62. 4to. and 8vo.

— Traité théorique et pratique des irrigations. 3 vols. (Atlas of plates.)

Paris, 1843-44. folio and 8vo.

BUGGE, T. Observationes astronomicæ annis 1781, 1782 & 1783. institutæ in observatorio Regio Havniensi, *etc.*

Havnice, 1784. 4to.

BUILDERS' SOCIETY. Acts regulating Buildings in the Metropolis : a digest of the law as it now stands with reference to building and matters connected therewith in the metropolis and parts adjacent thereto. Prepared for the Builders' Society by the Hon. Sec.

Lond. 1856. 8vo.

BUIST, Dr. G. Notices of the most remarkable Meteors in India, of the fall of which accounts have been published. *Tract.* 8vo. vol. 188.

[1850?] 8vo.

— On Hailstorms in India. *Tract.* 8vo. vol. 188.

1850. 8vo.

BULHOES, A. M. DE O. Estudos definitivos de Alagoinhas ao Joazeiro e Casa Nova. *Tract.* 4to. vol. 79.

[1880?] 4to.

BULKLEY, T. A. Report on the Victoria Water Supply.

Victoria, 1872. 8vo.

BULL, W. Bull's patent tubular Tiles, and method of manufacture, *etc.* *Tract.* folio. vol. 41.

[1887?] folio.

— Description of Automatic Gear for working the larger sizes of Bull's patent dredgers. *Tract.* folio. vol. 41.

Roorkee, 1886. folio.

- BULL, W. J. Public works in New Zealand from 1870 to 1877. *Tract. 8vo. vol. 293. Christchurch, N.Z. 1877. 8vo.*
- BULLER, W. L. Essay on the Ornithology of New Zealand. *Dunedin, 1865. 8vo.*
- Manual of the Birds of New Zealand. *Wellington, 1882. 8vo.*
- BULLOCK, F., *Capt., R.N.* The Refuge Beacon erected on the Goodwin Sands. *Tract. 8vo. vol. 286. Lond. 1842. 8vo.*
- BULLOCK, F., *Capt., R.N.*, and BURSTAL, E. River Thames from London to Gravesend, surveyed 1830–3, *etc.* *Lond. 1856. 8vo.*
- BULLOCK, W. Sketch of a Journey through the Western States of North America; with a description of Cincinnati in 1826, by B. Drake and E. D. Mansfield, *etc.* *Tract. 8vo. vol. 396. Lond. 1827. 8vo.*
- BULLOCK ISLAND, *N.S.W.* Report . . . relating to the proposed Bridge to connect Bullock Island with the mainland at Newcastle. *Sydney, 1890. folio.*
- BUNAU-VARILLA, P. Panama, le passé, le présent, l'avenir. Ouvrage accompagné de vues photographiques, de cartes et plans et d'un atlas. *Paris, 1892. 4to.*
- BUNKER'S HILL COLLIERY. Report by T. Wynne on the Explosion. *Lond. 1875. folio.*
- BUNNING, J. B. Isometric view, ground plan, and elevations of the improvements in the neighbourhood of Smithfield, proposed by the Corporation of London, 1851. *Lond. 1851. folio.*
- BUNSEN, R. Gasometry, comprising the leading physical and chemical properties of gases. Translated by H. E. Roscoe. *Lond. 1857. 8vo.*
- BUNT, T. G. Pendulum Experiments. *Tract. 8vo. vol. 193. [Lond.] 1851. 8vo.*
- Report on the application of the sum assigned for tide calculations to Mr. Whewell. *Tract. 8vo. vol. 65. Lond. 1840. 8vo.*
- BUNTE, H. Berichte der Heizversuchsstation München. *Tract. 8vo. vols. 353 and 382. München, 1879–82. 8vo.*
- Beschränkung der Wasservergeudung. 1885. See SCHILLING, N. H., and BUNTE, H.
- Mittheilungen über neuere Versuche zur Bestimmung des Heizwerthes der Kohlen. *Tract. 8vo. vol. 519. [Nürnberg, 1892.] 8vo.*
- Die Münchener Generator-Oefen. 1882. See SCHILLING, N. H., and BUNTE, H.
- Naphtalin und Benzol im Leuchtgas. *Tract. 8vo. vol. 519. [München, 1892.] 8vo.*
- Die Resultate der Heizversuchsstation München. *Tract. 8vo. vol. 470. München, 1882. 8vo.*
- Zur Heizgasfrage. 1883. See SCHILLING, N. H., and BUNTE, H.
- Zur Werthbestimmung der Kohle. *Tract. 8vo. vol. 519. Berlin, [] 8vo.*

- BUODO, P. Estuario Veneto, fiume Po. *Tract. 8vo. vol. 261.*
Padova, 1873. 8vo.
- BUQUET, A. De la traction à vapeur sur les rivières et les canaux.
Notes et documents. *Tract. 8vo. vol. 164.* Paris, 1868. 8vo.
- Touage sur cable métallique, système de Mesnil. *Tract. 8vo.*
vol. 185. Paris, 1869. 8vo.
- BURAT, A. Comité des houillères françaises. Situation de l'industrie
houillère, 1859-75. (Atlases of plates.)
Paris, 1860-76. folio & 8vo.
- Cours d'exploitation des mines. 2nd edition. (Atlas of plates.)
Paris, 1876. 4to.
- Géologie appliquée. Traité du gisement et de l'exploitation des
minéraux utiles. 3^e édition. (Supplément.)
Paris, 1855, 65. 8vo
- — 5^e édition. 2 vols. Paris, 1870. 8vo.
- Les houillères à l'Exposition Universelle de 1878.
Paris, 1879. 4to.
- Les houillères en 1872. (Atlas.) Paris, 1872. 4to.
- Le matériel des houillères en France et en Belgique. Description
des appareils, machines et constructions employés pour exploiter la
houille. (Atlas.) Paris, 1861, 64. folio and 8vo.
- BURBAGE. Report on the circumstances attending an Explosion,
on the 1st March, 1890, at the Grin Quarries, Burbage, near
Buxton. Lond. 1890. folio.
- BURBURY, S. H. The Mathematical Theory of Electricity and
Magnetism. 1885. See WATSON, H. W., and BURBURY, S. H.
- BURCH, G. J. A Manual of Electrical Science, etc. [University
Extension Series.] Lond. 1893. 8vo.
- On a method of determining the value of Rapid Variations of a
difference of Potential by means of the Capillary Electrometer.
Tract. 8vo. vol. 517. [Lond. 1890?] 8vo.
(From the Proceedings of the Royal Society.)
- On the Time-relations of the Excursions of the Capillary Electro-
meter, with a description of the method of using it for the investi-
gation of Electrical Changes of short duration. *Tract. 4to. vol. 116.*
(Transactions of the Royal Soc. of London.) Lond. 1892. 4to.
- BURDACH, D. C., and REISIG, J. B. De vi aeris in sono, etc. *Tract.*
4to. vol. 26. Lipsiæ, 1767. 4to.
- BURDER, W. C. The meteorology of Clifton: being the results of
ten years' observations. *Tract. 4to. vol. 368.* Bristol, 1863. 8vo.
- BURDETT, H. C. Official intelligence for 1882, 1883 (etc.), being
a carefully revised précis of information regarding all British,
American, and foreign securities, etc. Lond. 1882, etc. 4to.
- BURDETT, P. P., and BECK, R. A cursory view of a proposed Canal:
from Kendal, to the Duke of Bridgewater's canal, leading to
Manchester, etc. *Tract. 8vo. vol. 6.* 1769. 8vo.

- BURDON-SANDERSON, J. *Apparatus for Physiological Investigation*. [Science Lectures at South Kensington, vol. 2.]
Lond. 1879. 8vo.
- BURWOOD, J. *Directions for reducing Tidal Observations*. *Tract*.
8vo. vol. 261. Lond. 1858. 8vo.
- *Tide tables for the English and Irish ports for the years 1857–58*.
Tract. 8vo. vol. 114. [For later tables see HARRIS.]
Lond. 1856–57. 8vo.
- BUREAU VERITAS. *Rapport sur les essais et expériences sur l'acier doux employé dans la construction des navires*. *Tract*. 8vo.
vol. 345. Bruxelles, 1879. 8vo.
- BURESCH, E. *Ueber die Begründung von Gebäuden, etc*. *Tract*.
8vo. vol. 239. Hannover, 1867. 8vo.
- BURGE, C. O. *Light Railways for New South Wales*. (With discussion.) *Tract*. 8vo. vol. 533. Sydney, 1892. 8vo.
- BURGES, A. *Account of the old Bridge at Stratford-le-Bow*. *Tract*.
4to. vol. 71. Lond. 1837. 4to.
- [For Reports by J. Walker and A. Burges:] See WALKER, J., and BURGES, A.
- BURGESS, B., *Capt*. *A brief history of the Royal United Service Institution*. *Tract*. 8vo. vol. 448. Lond. 1887. 8vo.
- BURGESS HILL. *Burgess Hill Water Act, 1886*.
Lond. 1886. folio.
- BURGH, N. P. *The history of the invention of the Link-motion*.
Tract. 4to. vol. 63. [1870?] 4to.
- *The Indicator Diagram practically considered*. Lond. 1869. 8vo.
- *Link-motion and Expansion Gear, practically considered*.
Lond. 1870. 4to.
- *Modern Marine Engineering*. (Supplement.)
Lond. 1869, 73. 4to.
- *Practical illustrations of modern land and marine engines, showing in detail the improvements, etc*. Lond. 1864. folio.
- *Practical treatise on Boilers and Boiler-making*. Lond. 1873. 4to.
- *A practical treatise on the Condensation of Steam*.
Lond. 1871. 8vo.
- *A practical treatise on modern Screw-propulsion*.
Lond. 1869. 4to.
- *A treatise on Sugar Machinery, etc*. Lond. 1863. 4to.
- BURGH, T. *A Method to determine the Areas of Right-lined Figures universally; with tables of latitude and departure*. *Tract*. 4to.
vol. 5. Dublin, 1724. 4to.
- BURGOYNE, Sir J. F., *Bart.*, *Field-Marshal*. *Hasty intrenchments*.
Memo. *Tract*. 8vo. vol. 180. Chatham, 1869. 8vo.
- *Rudiments of the art of Constructing and Repairing common Roads, and a general survey of the principal metropolitan roads*.
3rd edition, with additions. Lond. 1861–62. 8vo.

- BURGOYNE, Sir J. F., Bart., Field-Marshal—continued.** A treatise on the Blasting and Quarrying of stone, for building and other purposes; with the constituents and analyses of granite, slate, limestone, and sandstone; to which is added some remarks on the blowing-up of bridges. A new edition, with index.
Lond. 1868. 8vo.
- BURGUE, J. DE.** Dictionnaire technologique anglais-français et français-anglais.
Paris, 1874. 12mo.
- *Métrologie anglaise.* *Tract.* 8vo. vol. 239. *Paris*, 1874. 8vo.
- BURIN DES ROZIERES, A.** Manuel de l'administrateur de mines, etc.
Paris, 1887. 8vo.
- BURKE, C. T.** Report on the Water Supply to the town of Pand-harpur. *Tract.* 8vo. vol. 469. *Roorkee*, [1880 ?]. 8vo.
- BURKE, U. R.** A handbook of Sewage Utilization.
Lond. 1872. 12mo.
- BURLINGTON, C., REES, D. L., and MURRAY, A.** The modern universal British traveller; or a new tour through England, Wales, Scotland, and the neighbouring islands. *Lond.* 1779. folio.
- BURLINGTON, N.J.** Report of the committee on Waterworks, appointed by the city council; with the analysis of lake and river waters by Prof. Henry M. Seely, and the report of W. J. McAlpine. *Tract.* 8vo. vol. 186. *Burlington*, 1866. 8vo.
- BURLINSON, H., and SIMPSON, W. H.** The iron shipbuilders', engineers', and iron merchants' guide and assistant, containing the calculated weights of iron plates.
Lond. 1865. 4to.
- BURMAH.** See INDIA.—BURMAH.
- BURN, C.** On the construction of Breakwaters, for harbours similarly situated as the one at Dover. *Tract.* 8vo. vol. 102.
Lond. 1859. 8vo.
- BURN, R., Colonel, R.A.** A Naval and Military Technical Dictionary of the French language. 4th edition. *Lond.* 1860. 8vo.
- BURN, R.** Optional Audible Signal, etc. *Tract.* 8vo. vol. 238.
Lond. 1874. 12mo.
- The Missing Link: signalling trains in fogs and snow-storms. *Tract.* 8vo. vol. 279. *Lond.* 1877. 8vo.
- BURN, R. S.** Building construction; showing the employment of brickwork and masonry, etc. (Atlas of plates.) 2 vols.
Lond. 1876. 8vo. and 4to.
- Building construction; showing the employment of timber, lead, and ironwork, etc. (Atlas.) *Lond. and Glasgow*, 1874. 4to. and 8vo.
- The illustrated London Practical Geometry and its application to architectural drawing. 2nd edition. *Lond.* 1853. 8vo.
- Mechanics and mechanism: being elementary essays and examples, etc. 2nd edition. *Tract.* 8vo. vol. 377. *Lond.* 1854. 8vo.
- Model designs for mansions . . . cottages, gates, and stables; with . . . essays on cottage accommodation for our labourers: and Conservatories, their arrangement, etc.
Lond. and Edinburgh, 1860. 4to.

- BURN, R. S.—*continued*. Modern mechanical engineering and machine-making ; a series of working drawings and practical designs. . . Edited by R. S. Burn. *Edinburgh*, [1888.] folio.
- Outlines of Modern Farming. 3rd edition. 5 vols. *Lond.* 1865–74. 8vo.
- Practical Ventilation as applied to public, domestic, and agricultural structures. *Lond.* 1850. 8vo.
- BURNABY, Col. F. Possibilities of Ballooning. *Tract.* 8vo. vol. 363. *Lond.* 1884. 8vo.
- BURNBANK, *Glasgow*. Report by Maj. Majendie on the Explosion of Dynamite at Burnbank. *Lond.* 1876. folio.
- Report respecting a Boiler Explosion at Messrs. W. Wallace and Co.'s Works, Burnbank, Glasgow. *Lond.* 1882. folio.
- BURNELL, G. R. The annual Retrospect of Engineering and Architecture. Vol. 1. *Lond.* 1862. 8vo.
- The Builder's and Contractor's Price-book. *Lond.* 1861. 8vo.
- Letter to . . . Viscount Palmerston, in reply to the report of the General Board of Health, on the administration of the Public Health Act . . . from 1848 to 1854. *Tract.* 8vo. vol. 105. *Lond.* 1854. 8vo.
- New Public Health Bill. The privileges of Parliament endangered and the rights of the people violated. *Tract.* 8vo. vol. 105. *Lond.* 1855. 8vo.
- Rudimentary treatise on Limes, Cements, Mortars, etc. *Lond.* 1850. 8vo.
- The Rudiments of Hydraulic Engineering. New edition. *Lond.* 1868. 8vo.
- BURNESS, W. Practical River Reform. *Tract.* 8vo. vol. 342. *Lond.* 1882. 8vo.
- BURNETT, *River*. [Report on Works necessary for the] Improvement of the Burnett River. *Brisbane*, 1878–85. folio.
- BURNETT, A. Tillage a substitute for Manure, illustrated by the . . . practice of Jethro Tull. *Lond.* 1859. 8vo.
- BURNETT, Sir W. Copy of a Report of the proceedings before the Judicial Committee of the Privy Council, for an extension of his patent for the preservation of timber . . . from dry rot, etc. *Tract.* 8vo. vol. 100. *Lond.* 1852. 8vo.
- Patent process for the Preservation of Timber, etc. *Tract.* 8vo. vol. 137. *Lond.* [1843 ?] 8vo.
- Prospectus and testimonials of his patent for Preservation of Timber, Canvas [and other materials], etc. *Tract.* 8vo. vol. 72. *Lond.* [1851 ?] 8vo.
- Supplement to pamphlets containing copies of testimonials in favour of Sir W. Burnett's patents, etc. *Tract.* 8vo. vol. 121. *Lond.* 1858. 8vo.

- BURNLEY. Act for improving the town of Burnley.
Lond. 1846. folio.
- BURNSIDE RESERVOIR, *Australia*. [Official] Estimate.
1878. folio.
- BURNS, W. Illuminating and heating Gas: a manual of the
manufacture of gas from tar, oil, and other liquid hydrocarbons,
and extracting oil from sewage sludge. *Lond.* 1887. 8vo.
- What is Technical Education? *Tract. folio. vol. 42.*
Leith, 1888. folio.
- BURR, S. D. V. Tunnelling under the Hudson River.
New York, 1885. 4to.
- BURR, W. H. A course on the Stresses in bridge and roof trusses,
etc. *New York*, 1880. 8vo.
- — 3rd edition. *New York*, 1886. 8vo.
- The Elasticity and Resistance of the Materials of Engineering.
New York, 1883. 8vo.
- BURROW, J. The question concerning literary property, determined
by the court of King's Bench, on 20th April, 1769, in the cause
between A. Millar and R. Taylor, *etc.* *Tract. 4to. vol. 20.*
Lond. 1773. 4to.
- BURROW, J. C., and THOMAS, W. 'Mongst Mines and Miners . . .
A series of photographs, with explanatory letterpress, illustrating
methods of working in Cornish Mines. Part 1.—Account of the
photographic experiences. Part 2.—Description of the subjects
photographed. *Lond.* 1893. 4to.
- BURROWS, A. J. Roads, their construction and maintenance.
Tract. 8vo. vol. 404. *Lond.* 1885. 8vo.
- BURRUM COAL MINES, *Queensland*. Report.
Brisbane, 1878. folio.
- BURRUM RAILWAY, *Queensland*. Report of the Select Committee
on the Bill, *etc.* *Brisbane*, 1879. folio.
- BURSTAL, E., *Capt., R.N.* Observations on the reply of Sir Joseph
Bazalgette, and Messrs. Law and Chatterton, to Capt. Calver's
report on shoals formed in the river Thames by mud from the
sewers. *Tract. 8vo. vol. 291.* *Lond.* 1878. 8vo.
- River Thames from London to Gravesend, *etc.* 1856. See BUL-
LOCK, F., *Capt., R.N.*, and BURSTAL, E.
- Tidal observations on the river Thames, at Sheerness, Blackwall,
London Docks, Blackfriars, Westminster, Chelsea and Wands-
worth. *Lond.* 1856. 4to.
- BURSTAL, E. K. Metropolitan Water Supply, *etc.* 1892. See
STEVENSON, E. H., and BURSTAL, E. K.
- Precedents in Private Bill Legislation affecting Gas and Water
undertakings. 1891. See STEVENSON, E. H., and BURSTAL, E. K.
- Tabulated abstract of Acts of Parliament relating to Water
Undertakings, 1879 to 1887. *Lond.* 1888. 8vo.

- BURT, BOULTON, and HAYWOOD. Catalogue of Products obtained from the residual substances of Gas Manufacture. *Tract.* 8vo. vol. 353. Lond. 1883. 8vo.
- BURT, A. Life-assurance: an historical and statistical account of the population, the law of mortality, and the different systems of life-assurance, etc. *Lond.* 1849. 8vo.
- BURT, H. P. On the nature and properties of Timber: with . . . particulars of several methods . . . for its preservation from decay. *Tract.* 8vo. vol. 501. *Lond.* 1854. 8vo.
(From Min. Proc. Inst. C.E.)
- BURTON, R. Report . . . on the proposed Navigation to Knaresboro'. *Tract.* 8vo. vol. 6. *York,* 1802. 8vo.
- BURTON AND FRADLEY CANAL. Bill. *Tract.* 8vo. vol. 48. [*Lond.* 1794.] 8vo.
- BURTY, P. Chefs-d'œuvre of the industrial arts. Pottery and porcelain, glass, enamel, metal, goldsmith's work, jewelry, and tapestry. *Lond.* 1869. 8vo.
- BURWELL, L. C. Steam Boilers; their construction, setting, and management, etc. *Tract.* 8vo. vol. 487. [*U.S.A.*] 1884. 8vo.
- BURWELL, W. M. Memoir explanatory of the Transunion and Tehuantepec Route between Europe and Asia. *Tract.* 8vo. vol. 227. *Washington,* 1851. 8vo.
- BURY. An Act for granting more effectual Powers for supplying with Water the Town of Bury, etc. *Lond.* 1846. folio.
- BURY, *River.* Bury, Lougher and Shedi Rivers Improvement Act. *Lond.* 1813. folio.
- BURY, E. Recollections of E. Bury: by his widow. *Tract.* 8vo. vol. 134. *Windermere,* [1860?] 8vo.
- BURY, T. T. Rudimentary Architecture: the history and description of the styles, etc. *Lond.* 1849. 8vo.
- Coloured views on the Liverpool and Manchester Railway, with plates of the coaches, machines, etc. *Lond.* 1831. 4to.
- BURY, W. The Resistance and the Proportions of Screw Propellers. *Lond.* 1883. 4to.
- The Power and Speed of Steam Vessels. *Lond.* 1878. 4to.
- BUSBRIDGE, W. Portfolio of working drawings of the most important parts of Machines and Engines. 2 vols. *Woolwich,* [1882.] folio.
- BUSCHMAN, M. v. La organizzazione del servizio economico sulle ferrovie. [Translated from the German by M. Ferraris.] *Tract.* 4to. vol. 85. [1881.] 4to.
- BUSH, G. Portland Breakwater. Report to the provisional Committee of the proposed Breakwater Company. *Tract.* folio. vol. 30. [*Lond.*] 1836. folio.
- BUSHNAN, J. S. The moral and sanitary aspects of the new Central Cattle Market, as proposed by the Corporation. *Tract.* 8vo. vol. 216. *Lond.* 1851. 8vo.

- BÜSING, F. W. Die Sicherheit in Theatern und in grösseren Versammlungs-Räumen. [Handbuch der Hygiene, herausgegeben von T. Weyl. Bd. 6.] *Jena*, 1894. 8vo.
- BUSK, H. Handbook for Hythe: comprising a familiar explanation of the laws of projectiles. *Lond.* 1860. 8vo.
- Steam Life-ships and how to build them. *Lond.* 1870. 4to.
- BUSLEY, C. Die Schiffsmaschine, ihre Construction, Wirkungsweise und Bedienung. (Atlas of plates.) 2 vols. *Kiel*, 1884. 8vo. and folio.
- The Marine Steam Engine, etc. *Kiel and Leipzig*, 1892, etc. 8vo.
- Die technische Entwicklung des Norddeutschen Lloyds, etc. 1893. See HAACK, R., and BUSLEY, C.
- BUSSER, O., Electric Towage. [5th Int. Congr. Int. Nav.] *[Paris, 1892.]* 8vo.
- BUSSY, M. A. L. DE. Rapport sur les travaux de l'École d'application de génie maritime. *Tract.* 4to. vol. 177. *Paris*, 1890. 4to.
(From the Comptes rendus des séances de l'Académie des Sciences.)
- BUSTAMANTE, F., and Co. Memoria y documentos referentes al ferro-carril interoceánico. *Tract.* 8vo. vol. 428. *Buenos Aires*, 1886. 8vo.
- BUTLER, J. W. Paper on Silicated Stone Pipes, etc. *Tract.* 8vo. vol. 469. *Lond.* 1879. 8vo.
- Stone caissons for . . . foundations manufactured in Ransome's patent stone, or Portland cement concrete. *Tract.* 8vo. vol. 209. *Lond.* 1871. 8vo.
- BUTLER, W. F. A small Colliery in North Wales, etc. [The Cae-Pen-Ty Colliery.] *Lond.* 1880. 8vo.
- Ventilation of Buildings. *Tract.* 8vo. vol. 351. *Lond.* 1873. 8vo.
- BUTLIN, W. H. On the Northampton Iron Ore District. *Tract.* 8vo. vol. 480. *Lond.* [1880?] 8vo.
- BUTTERWORTH, A. K. The practice of the Railway and Canal Commission, etc. *Lond.* 1889. 8vo.
- BUTTERWORTH, A. K., and ELLIS, C. E. A treatise on the Law relating to Rates and Traffic on Railways and Canals, etc. *Lond.* 1889. 8vo.
- BUTTON, F. S. County Borough of Burnley. A historical and detailed description of the Sewage Disposal Works. *Burnley*, 1893. 4to.
- BUTTS, F. B. The loss of the "Monitor." *Tract.* 8vo. vol. 409. 1885. 8vo.
- BUYS, P. H. A. M., and KOCK, A. W. T. Notice sur les grands ponts fixes pour chemins de fer dans les Pays-Bas. 2 vols. *Rotterdam*, 1885. 8vo.

- BUZZI, Dr. L. Cenni biografici del fu ingegnere Carlo Cav. Ghega : descrizione della ferrovia sul Semmering. *Tract.* 8vo. vol. 467.
Trieste, 1879. 8vo.
- Dilucidazioni sul porto-canale Rieter. *Tract.* 4to. vol. 60.
Trieste, 1863. 4to.
- La ferrovia metropolitana di Berlino. *Tract.* folio. vol. 32.
Trieste, 1883. folio.
- Le ferrovie russe negli ultimi tempi. *Tract.* 8vo. vol. 428.
Trieste, 1882. 8vo.
- Le pont sur le Volga près de Batraki, etc. *Trieste*, 1887. folio.
- Progetto di comunicazione dei due porti di Trieste mediante un canale di navigazione attraverso la città. Project eines Hafen-canal's als Verbindung der Buchten von Triest und Muggia. *Tract.* 4to. vol. 60.
Trieste [1870?] 4to.
- Sull' applicazione della geologia in ispecie all' ingegneria. *Tract.* 8vo. vol. 363.
Trieste, 1878. 8vo.
- Sulla ferrovia di raccordamento fra l'attuale stazione e quella della nuova ferrovia Trieste-Erpelie. *Tract.* 8vo. vol. 458.
Trieste, 1885. 8vo.
- Sulle ferrovie russe. *Tract.* 8vo. vol. 363. *Trieste*, 1881. 8vo.
- Sul sistema costruttivo e dispositivo delle nostre abitazioni in relazione all' igiene. *Tract.* 8vo. vol. 363. *Trieste*, 1879. 8vo.
- Die Triester Zollanschlussbauten, etc. *Tract.* 4to. vol. 120.
Wien, 1892. 4to.
- Ueber die vergleichenden Betriebskosten und Frachtsätze auf den projectirten Eisenbahnlunien Triest-Laak und Trieste-Predil-Tarvis. *Tract.* 4to. vol. 93.
Trieste, 1875. 4to.
- BYAM, G. Wanderings in some of the western republics of America : with remarks upon the cutting of the great ship canal through Central America. *Lond.* 1850. 8vo.
- BYLES, J. B. A practical treatise of the Law of Bills of Exchange, promissory notes, bank-notes, etc. 2nd edition.
Lond. 1834. 12mo.
- BYRNE, A. T. A Treatise on Highway Construction, etc.
New York, 1892. 8vo.
- BYRNE, O. The art of Dual Arithmetic, which entirely supersedes the use of logarithms. *Tract.* 4to. vol. 81.
Philadelphia, 1878. 4to.
- The doctrine of Proportion clearly developed . . . or, the fifth book of Euclid simplified. *Lond.* 1841. 8vo.
- The essential elements of Practical Mechanics, etc.
Lond. 1867. 8vo.
- General method of solving Equations of all degrees, etc. *Tract.* 8vo. vol. 212.
Lond. 1868. 8vo.

- BYRNE, O.—*continued*. Spons' dictionary of engineering . . . With technical terms in French, German, Italian, and Spanish. (Supplement.) 11 vols. *Lond.* 1869–81. 8vo.
- Treatise on Navigation and Nautical Astronomy. *New Jersey*, 1876. 4to.
- The young Dual Arithmetician ; or, dual arithmetic. A new art, *etc.* *Lond.* 1866. 8vo.
- BYRON BAY, *N.S.W.* Report . . . relating to the proposed Break-water at Byron Bay. *Sydney*, 1890. folio.

C.

- CABALLERO, F. Fomento de la poblacion rural de España. 2ª edicion. *Madrid*, 1863. 12mo.
- CABANES, F. X. DE. Memoria que tiene por objeto manifestar la posibilidad y facilidad de hacer navegable el rio Tajo desde Aranjuez hasta el Atlantico, etc. *Madrid*, 1829. folio.
- CACHEUX, E. État des habitations ouvrières à la fin du XIX^e siècle. *Paris*, 1891. 8vo.
- Étude des moyens pratiques de détruire la misère, etc. *Tract.* 8vo. vol. 311. *Paris*, 1876. 8vo.
- Les habitations ouvrières en tous pays. 1879. See MUELLER, E., and CACHEUX, E.
- CACHIN, J. M. F. Mémoire sur la digue de Cherbourg, comparée au breakwater ou jetée de Plymouth. *Tract.* 4to. vol. 8. *Paris*, 1820. 4to.
- Mémoire sur la navigation de l'Orne inférieure, etc. *Tract.* 4to. vol. 8. *Paris*, 1786. 4to.
- CADART, A. Note sur l'accident survenu le 18 avril, 1882, à l'ascenseur hydraulique d'Anderton. *Tract.* folio. vol. 29. *Langres*, 1882. folio.
- CADART, G. Des élévateurs et plans inclinés pour bateaux, etc. *Tract.* 8vo. vol. 521. *Paris*, 1889. 8vo.
- The Reservoirs of the Department of the Haute-Marne. [5th Int. Congr. Int. Nav.] *Paris*, 1892. 8vo.
- CADELL, W. A. On the lines that divide each semidiurnal arc into six equal parts. *Tract.* 4to. vol. 25. *Edinburgh*, 1816. 4to.
- CADET, S. Intorno un parelio e intorno una modificazione proposta per le navi da vapore. *Tract.* 4to. vol. 49. [Roma, 1860?] 4to.
- Qualche nuova considerazione su la formazione de' pianeti maggiori. *Tract.* 4to. vol. 49. *Roma*, 1860. 4to.
- CADIAT, —, and OUDRY, M. Notice sur l'emploi de la tôle, du fer forgé, et de la fonte dans les ponts. *Tract.* 8vo. vol. 99. *Paris*, 1851. 8vo.
- CADIAT, E. Manuel pratique de l'électricien, etc. *Paris*, 1892. 8vo.
- CADIAT, E., and DUBOST, L. Traité pratique d'électricité industrielle. 3^{me} édition. *Paris*, 1889. 8vo.
- CADOLINI, G. Progetto di una nuova inalveazione del Tevere attraverso ai prati di Castello. *Tract.* 8vo. vol. . *Roma*, 1881. 8vo.
- CAGNOLI, A. Memoir on a new and certain method of ascertaining the figure of the Earth by means of Occultations of the Fixed Stars, etc. *Tract.* 8vo. vol. 26. *Lond.* 1819. 8vo.

- CAIL, R. Tyne Improvement Commission. Report, *etc.* *Tract.*
folio. vol. 24. *Newcastle-upon-Tyne*, 1877. *folio.*
- CAILLARD, E. M. Electricity, the science of the nineteenth
 century, *etc.* *Lond.* 1891. 8vo.
- CAILLAUX, A. Tableau général et description des mines métalliques
 et des combustibles minéraux de la France. *Paris*, 1875. 8vo.
- CAILLÉ, J. Note sur un système d'éclisse, dite éclisse passe-joint.
Tract. 8vo. vol. 453. *Paris*, 1887. 8vo.
- CAIN, W. Theory of solid and braced elastic Arches, *etc.*
New York, 1879. 8vo.
- CAISTOR CANAL. An Act for making and maintaining a navi-
 gable Canal from the river Ancholme to Caistor.
Lond. 1793. *folio.*
- CALAIS. Calais Harbour Works. *Tract.* 8vo. vol. 483.
 (Reprinted from "Engineering.") *Lond.* [1889.] 8vo.
- Le port de Calais, inauguré . . . 1889. *Paris*, [1889.] 8vo.
- CALAND, A. Handleiding tot de kennis der dyksbouw- en zeeerings-
 kunde. Eerste deel. *Zierikzee*, 1833. 8vo.
- Open brief aan den Heer Mr. K. Wagtho, betrekkelijk zijne
 verdediging van het onlangs ontworpen polder-reglement van
 Zeeland. *Tract.* 8vo. vol. 162. *Middelburg*, 1857. 8vo.
- Verhandeling over het nut der afgezaagde palen-hoofden, *etc.*
Tract. 8vo. vol. 162. *Middelburg*, 1819. 8vo.
- CALAND, P. Étude sur l'effet des marées dans la partie maritime
 des fleuves. *Tract.* 8vo. vol. 345. *Paris*, 1861. 8vo.
- CALCUTTA. See INDIA.—CALCUTTA.
- CALDER, River. See AIRE and CALDER, Rivers.
- CALEDONIAN CANAL. Act for the Construction of the Cale-
 donian Canal. *Lond.* 1804. *folio.*
- Letter from Mr. Munro, and Treasury Minute.
Lond. 1840. *folio.*
- First, (Second, *etc.*) Report of the Commissioners.
Lond. 1804, *etc.* *folio.*
- Mr. Walker's Report, *etc.* *Lond.* 1838. *folio.*
- Report by Capt. Sir W. E. Parry, R.N. *Lond.* 1842. *folio.*
- Report of the Committee of the House of Commons respecting
 the Caledonian Canal. *Tract.* 8vo. vol. 6. *Dublin*, 1805. 8vo.
- Reports from the Select Committee on the Caledonian and Crinan
 Canal. *Lond.* 1839, 42. *folio.*
- CALEDONIAN RAILWAY. Print of cuttings from newspapers,
 relative to the Caledonian Railway and its originators. "N'oubliez."
Tract. 8vo. vol. 491. (Privately printed.) *Glasgow*, 1890. 8vo.
- Tabular statement of the Traffic Receipts of the principal Rail-
 ways. [Prepared by the Company.] *St. Rolloz*, 1885–90. 8vo.
 (Incomplete.)

CALEDONIAN RAILWAY—*continued*. Report by the Board of Trade . . . on the Classification of Merchandise Traffic, and schedule of maximum rates applicable thereto, *etc.*

Lond. 1891. folio.

— Reports . . . from the Select Committee on the Caledonian Railway (Conversion of Stock) Bill, *etc.* *Lond.* 1890. folio.

CALIFORNIA.—[*State Board of Trade.*] Reclamation of arid Lands by Irrigation. *Tract.* 8vo. vol. 486. *San Francisco*, 1889. 8vo.

— [State Engineer.] Report . . . to the Legislature of the State . . . Session 1880 (1881). *Sacramento*, 1880–81. 8vo.

— — Irrigation Development . . . in France, Italy and Spain. The introductory part of the Report of the State Engineer of California (W. H. Hall) on Irrigation, *etc.* (Irrigation in California [Southern]. The second part of the Report, *etc.*) *Sacramento*, 1886, 88. 8vo.

— [State Mining Bureau.] Bulletins. *Sacramento*, 1888. 8vo.

— Fourth (Sixth, *etc.*) Report of the State Mineralogist. *Sacramento*, 1884, *etc.* 8vo.

CALIFORNIA UNIVERSITY. Addresses delivered before the California Teachers' Association at Riverside, December, 1891. [University Bulletin No. 24.] *Berkeley*, 1892. 8vo.

— Addresses at the Inauguration of W. T. Reid, as President . . . and the Dedication of the Bacon Art and Library Building, Berkeley, August 23, 1881. *Sacramento*, 1881. 8vo.

— [Analysis of a] Hydraulic Step. [*Dept. Mech. Eng.* Bulletin No. 2.] *Berkeley*, 1887. 8vo.

— Annual Announcement of Courses of Instruction for the . . . year 1885–86. *Berkeley*, 1885. 8vo.

— Annual Report of the Secretary to the Board of Regents . . . for the year ending June 30, 1886, (1887, *etc.*) *Sacramento*, 1886, *etc.* 8vo.

— Biennial Reports of the President of the University, 1882–84, *etc.* *Sacramento*, *etc.* 1884. 8vo.

— Bulletins Nos. 1–36. *Berkeley*, 1874–79. 8vo.

(No. 32 wanting.)

— Bulletin No. 6. [Circular of the Colleges of Letters and of Science.] 8th (10th, 11th) edition. *Berkeley*, 1883–87. 8vo.

— By-Laws of the Board of Regents. [1880?] 8vo.

— Circular . . . in relation to the Testing of Materials. [*Dept. Mech. Eng.*] *Berkeley*, 1887. 8vo.

— College of Agriculture. Alkali Lands, Irrigation and Drainage in their mutual relations, *etc.* *Sacramento*, 1886. 8vo.

— College of Agriculture. Report of Work of the Agricultural Experiment Stations of the University . . . for the year 1890, *etc.* *Sacramento*, 1891. 8vo.

- CALIFORNIA UNIVERSITY**—*continued*. College of Agriculture.
 Report of the Viticultural Work during the Seasons 1885 and 1886, (1887–89,) *etc.* *Sacramento*, 1886–92. 8vo.
 — Contents-Index [of the] Library. Vol. I. *Berkeley*, 1889–90. 8vo.
 — Experiments with a Partial Turbine or Tangential Wheel . . . also Experiments with Hurdy Gurdy Wheels, and comparison of the efficiency of a Pelton Wheel with that of the Partial Turbine, *etc.* [*Dept. Mech. Eng. Bulletin No. 1.*] *Berkeley*, 1883. 4to.
 — Library Bulletin No. 1, (2, *etc.*) *Sacramento and Berkeley*, 1880, *etc.* 8vo.
 — Proceedings at the Banquet of the Alumni Association of the University . . . March 23, 1893, *etc.* [*Berkeley*, 1893.] 8vo.
 — Register. Session 1886–87, (1887–88, *etc.*) *Berkeley*, 1887, *etc.* 8vo.
 — Report of Special Committee on the College of Agriculture. [*San Francisco*, 1883.] 8vo.
 — Report on the Agricultural Experiment Stations of the University of California, with descriptions of the Regions represented, *etc.* *Sacramento*, 1890. 8vo.
 — Results of Tests for Tensile Strength . . . of Crucible Basic, and Galvanized Basic Steel Wire Ropes, and Basic Steel Wire Rods, *etc.* [1893?] 8vo.
 — Statement of the Progress and Condition of the University of California. *Berkeley*, 1875. 8vo.
- CALIGNY, A. DE, Marquis.** Recherches théoriques et expérimentales sur les oscillations de l'eau et les machines hydrauliques à colonnes liquides oscillantes. 2 vols. in 1. *Versailles and Paris*, 1883. 8vo.
- CALL, R. E.** On the Quaternary and Recent Mollusca of the Great Basin; with descriptions of new forms, by R. Ellsworth Call. Introduced by a sketch of the Quaternary Lakes of the Great Basin, by G. K. Gilbert. [*U.S. Geol. Survey. Bulletin No. 11.*] *Washington*, 1884. 8vo.
- CALLEN and RIPLEY.** Patent multiplying rotative motion, as a substitute for tooth gear, for multiplying or diminishing speed. *Tract.* 8vo. vol. 111. *Lond.* 1855. 8vo.
- CALLENBERG, —.** The new gun system—Longridge, or the use of wire in the manufacture of guns. *Tract.* 8vo. vol. 367. *Lond.* 1885. 8vo.
- CALLET, F.** Monographie des halles centrales de Paris. 1872–73. See **BALTARD, V.**, and **CALLET, F.**
 — Tables portatives de logarithmes. *Paris*, 1846. 8vo.
- CALLIS, R.** The reading of R. Callis upon the statute of sewers; with the several judgments and resolutions of the judges. 4th edition. [*With the MS. notes of the late Mr. Serjeant Hill.*] *Lond.* 1810. 8vo.

- CALLON, J. Cours professés à l'École des Mines de Paris. 1^{re} partie.
Cours de machines. 3 vols. (Atlas.)
Paris, 1873-77. 8vo. and 4to.
- — 2^{me} partie. Cours d'exploitation des mines. 3 vols. (Atlas.)
Paris, 1874-76. 8vo. and 4to.
- Lectures on Mining: translated by C. Le Neve Foster and
W. Galloway. 3 vols. (Atlas.)
Lond. 1876-86. 8vo. and folio.
- CALMELS, G., and SAULNIER, E. Guide pratique du fabricant de
savons.
Paris, 1887. 8vo.
- CALVER, E. K., *Capt., R.N.* The Conservation and Improvement of
tidal Rivers, considered principally with reference to their tidal
and fluvial powers.
Lond. 1853. 8vo.
- The cry for national Harbours. *Tract.* 8vo. vol. 265.
Lond. 1876. 8vo.
- A letter to the Tyne improvement commissioners. *Tract.* 8vo.
vol. 135. *Newcastle*, 1852. 8vo.
- On the construction and principle of a Wave Screen, designed for
the formation of harbours of refuge. *Tract.* 8vo. vol. 102.
Lond. 1858. 8vo.
- Proposal for the Improvement of Southwold Harbour (with a plan)
submitted in 1844. *Tract.* 8vo. vol. 305. *Beccles*, 1856. 8vo.
- Remarks on the proposed national harbour at Dover. *Tract.*
8vo. vol. 251. *Lond.* 1875. 8vo.
- Report on Improvements effected in the river Tyne. *Tract.*
folio. vol. 20. *Lond.* 1872. folio.
- Report on the Discharge of metropolitan Sewage into the river
Thames. *Lond.* 1877. 8vo.
- Report . . . on proposed Weir and Lock near Brentford, 1873.
See COODE, Sir J., and CALVER, E. K.
- Thames Conservancy: a rejoinder to the reports of Sir Joseph
Bazalgette . . . on the allegations made against the sewage outfalls
at Barking Creek and Crossness. *Tract.* 8vo. vol. 291.
Redhill, 1878. 8vo.
- CALVERT, F. C. *See* CRACE-CALVERT.
- CALVERT, J. The Gold Rocks of Great Britain and Ireland, and
a general outline of the gold regions of the world, with a treatise
on the geology of gold. *Lond.* 1853. 8vo.
- Notes on the Minerals of India. *Tract.* 8vo. vol. 196.
Calcutta, 1870. 8vo.
- Vazeeri Rupi, the silver country of the Vazeers, in Kulu: its
beauties, antiquities, and silver mines. Including a trip over the
lower Himalayah range and glaciers. *Lond.* 1873. 8vo.
- CAMBERWELL WATERWORKS. Minutes of Evidence on the
Camberwell Waterworks Bill. *Lond.* 1805. folio.

- CAMBESSÉDÈS, F.** Cours théorique et pratique d'exploitation des mines. *Paris, 1887, etc. 4to.*
- CAMBON, J.** Album international des villes d'eaux. *Paris, 1884. folio.*
- CAMBRELIN, A. L.** Port de Gris-Nez. Projet de création d'un vaste port de guerre et de commerce au cap de Gris-Nez, *etc.* (Réimpressions de 1887, 1889.) *Bruzelles, 1889. 4to.*
- Sécurité des ports forains. Projet d'un nouveau brise-lames flottant, rigide et insubmersible. *Tract. 4to. vol. 121.*
Bruzelles, 1887. 4to.
- CAMBRIDGE.** Report by J. W. Bazalgette and others on the Diversion of the Sewage of Cambridge from the River Cam. *Tract. 8vo. vol. 307.* *Lond. 1878. 8vo.*
- CAMBRIDGE CAMDEN SOCIETY.** Report for 1840; together with the address delivered by the president, March 28, 1840; and a list of the members, laws, *etc.* *Tract. 8vo. vol. 68.*
Cambridge, 1840. 8vo.
- CAMBRIDGE CANAL.** A brief Review of the Arguments for and against the intended Canal from Cambridge to the river Stort, as produced at Chesterford on the 5th of September, 1788, *etc.* By Y. Z. *Tract. 8vo. vol. 93.* *Lond. 1788. 8vo.*
- CAMBRIDGE OBSERVATORY.** Astronomical observations . . . for the years 1828-35: by G. B. Airy. For the years 1836-60: by the Rev. J. Challis. For the years 1861-65: by J. C. Adams. 21 vols. *Cambridge, 1829-79. 4to.*
- CAMBRIDGE PHILOSOPHICAL SOCIETY.**
Proceedings. *Cambridge, 1843, etc. 8vo.*
- Transactions. Vol. 5, *etc.* *Cambridge, 1835, etc. 4to.*
- CAMBRIDGE SCIENTIFIC INSTRUMENT COMPANY.** An improved form of Temperature Regulator. Account by the Cambridge Scientific Instrument Company of experiments made by them for the Board of Trade. *Cambridge, 1885. folio.*
- CAMBRIDGE UNIVERSITY.** Calendar for the year 1871, (1881, *etc.*) *Cambridge, 1871, 81, etc. 8vo.*
- [Library.] Twenty-eighth annual Report to the Senate. *Tract. 4to. vol. 117.* 1882. 4to.
- CAMDEN, J. N.** The Standard Oil Company. *Tract. 8vo. vol. 360.* [Boston, U.S.A.] 1883. 8vo.
(From the North American Review.)
- CAMERA CLUB.** Catalogue of the . . . Photographic Library. 2nd edition. [Lond. 1893.] 8vo.
- Proceedings. *Lond. 1886. 8vo.*
- CAMÉRÉ, —.** Traction on Canalized Rivers (the Lower Seine). [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.
- CAMERON, H.** The manufacture of large Forgings for Marine purposes. *Tract. 8vo. vol. 415.* Newcastle-upon-Tyne, 1886. 8vo.

CAMERON, W. H. Memorandum as to the expediency of constructing the Denscough Reservoir, 1876. See LESLIE, James, and CAMERON, W. H.

CAMERTON COLLIERY. Report . . . on the Explosion in the "New Pit" on the 13th November, 1893: by J. S. Martin.

Lond. 1894. folio.

CAMMELL, Sir C., and Co. "Wilson" compound steel-faced Armour Plate tested on board H.M.S. "Nettle." *Portsmouth*, 1888. 4to.

CAMPBELL, A. Memorandum on a proposed line of branch railway from the Delhi line at Deobund, to Roorkee, Hurdwar and Dehra, etc. *Tract. folio. vol. 15.* *Roorkee*, 1868. folio.

CAMPBELL, C. Report on the Indore Railway, 1871. See INDIA.—INDORE.

CAMPBELL, D. Proposed Supply of Water to . . . Maidstone, etc. 1858. See LANKESTER, E., and CAMPBELL, D.

— Railway Amalgamations: their bearing on the interests of Scotland; with special reference to the proposed amalgamation between Midland and Glasgow and South Western Railways. *Tract. 8vo. vol.* *Greenock*, 1873. 8vo.

— Report upon the Fuel of the South Western Railway. *Tract. folio. vol. 6.* *Lond.* 1855. folio.

CAMPBELL, F. A treatise on the culture of Flax and Hemp: being a reprint of the letters of Robin Goodfellow. 2nd edition. *Sydney*, 1845. 8vo.

CAMPBELL, F. A. Experiments upon the Hardwoods of Australia. *Tract. 8vo. vol. 473.* *Melbourne*, 1881. 8vo.

— The Stability of Structures in regard to Wind Pressures. *Tract. 8vo. vol. 427.* *Melbourne*, 1886. 8vo.

CAMPBELL, G. C. J. Ward v. Mississippi and Missouri Railroad Company. Abstract Pleadings, etc. 1859. See JUDD, N. B., and CAMPBELL, G. C.

CAMPBELL, J. Report of a Mineral Survey along the tract of the Union Canal, etc. 1814. See LAUDER, J., and CAMPBELL, J.

— Specifications of Floating Docks. *Tract. 4to. vol. 61.* *Lond.* 1869. 4to.

CAMPBELL, J. R., Capt. Range-finding for the service of Artillery: with a description of Campbell's range indicator. *Tract. 8vo. vol. 240.* *Lond.* 1874. 8vo.

CAMPBELL, L., and GARNETT, W. The life of James Clerk Maxwell, etc. *Lond.* 1882. 8vo.

CAMPBELL, T. H., Col. Military department, Madras. [Paper relating to an Iron Shield for ships, and a method of converting Ordnance, invented by Col. Campbell.] *Tract. folio. vol. 10.* [1864-65.] folio.

— Notes on the Construction of Iron-clad Ships of War. *Tract. 8vo. vol. 131.* [Madras, 1860?] 8vo.

- CAMPBELL, T. H., *Col.*—*continued.* On four experimental Carriages of Major Campbell's pattern. *Tract.* 8vo. vol. 131.
[Madras ?] 1860. 8vo.
- On Iron Shields for Ships of War, *etc.* *Tract.* 8vo. vol. 131.
Bangalore, 1861. 8vo.
- CAMPIN, F. Details of Machinery. *Lond.* 1883. 8vo.
- Materials and Construction. *Lond.* 1881. 8vo.
- On the construction of Iron Roofs, *etc.* *Lond.* 1850. 4to.
- A practical treatise on Mechanical Engineering, *etc.*
Lond. 1863. 8vo.
- A treatise on the Application of Iron to the construction of Bridges . . . and other works. 3rd edition. *Lond.* 1883. 8vo.
- CAMUS, C. E. L. A treatise on the Teeth of Wheels, Pinions, *etc.*
Translated from the French . . . and enlarged, by J. I. Hawkins.
Lond. 1806. 8vo.
- — 2nd edition. *Lond.* 1837. 8vo.
- CANADA. Guide Book containing information for intending Settlers.
Tract. 8vo. vol. 398. *Ottawa*, 1882. 8vo.
- Handbook to the Dominion of Canada. *Tract.* 8vo. vol. 398.
Lond. 1883. 8vo.
- Maps to be added to the correspondence relative to the re-union of the provinces of Upper and Lower Canada.
(Correspondence wanting.) 1840. folio.
- [*Astronomy.*] Report of the Canadian observations of the Transit of Venus, 6th December, 1882. *Tract.* 4to. vol. 91.
Toronto, 1883. 8vo.
- [*Canals.*] Canal Commission. Letter respecting the Improvement of Inland Navigation of . . . Canada. (Appendices.)
Ottawa, 1871. 8vo.
- Canal Statistics for 1877. *Ottawa*, 1878. 8vo.
See also infra: [*Railways.*]
- Report of the Chief Engineer of Canals. *Ottawa*, 1880. 8vo.
- [*Geology.*] Descriptive Catalogue of a collection of the economic Minerals of Canada, by the Geological Corps, *etc.* *Tract.* 8vo. vol. 426.
Lond. 1886. 8vo.
- Map of the Dominion of Canada, geologically coloured.
1842–82. 8vo.
- *Publications of the Geological Survey.*
- Contributions to Canadian Palæontology: by J. T. Whiteaves. Vol. I., pts. 1 and 2. *Montreal*, 1885–89. 8vo.
- Catalogue of a Stratigraphical Collection of Canadian Rocks: prepared for the World's Columbian Exposition, Chicago, 1893, by W. F. Ferrier. *Ottawa*, 1893. 8vo.
- Catalogue of Canadian plants. Part II. Gamopetalæ: by John Macoun. *Montreal*, 1884. 8vo.

CANADA.—*Publications of the Geological Survey—continued.*

- Catalogue of Section I. of the Museum of the Geological Survey, embracing the systematic collection of minerals and the collections of economic minerals and rocks, and specimens illustrative of structural geology : by G. C. Hoffmann. *Ottawa*, 1893. 8vo.
- Catalogue of a collection of the Economic Minerals of Canada, and notes on a stratigraphical collection of rocks. *Montreal*, 1876. 8vo.
- Catalogues of the Silurian Fossils of the island of Anticosti : by E. Billings. *Montreal*, 1866. 8vo.
- Descriptive Catalogue of the Economic Minerals of Canada, and of its crystalline rocks, sent to the London International Exhibition for 1862. *Montreal*, [1862.] 8vo.
- Figures and descriptions of Canadian Organic Remains. Decades I. to IV. 4 vols. *Montreal*, 1859–68. 8vo.
- Fossil Plants of the Devonian and upper Silurian formations of Canada : by J. W. Dawson. *Montreal and Lond.* 1871. 8vo.
- List of Publications. *Tract.* 8vo. vol. 401. *Montreal*, 1873. 8vo.
- Mesozoic Fossils : by J. T. Whiteaves. Vol. I., pts. 1 and 2. *Montreal*, 1876–79. 8vo.
- On the Laurentian Limestones of North America : by T. Sterry Hunt. Reprinted, with additions, from Report for 1863–66. *Albany*, 1871. 8vo.
- Palæozoic Fossils : by E. Billings. Vol. I. and Vol. II., pt. 1. *Montreal*, 1865–74. 8vo.
- Plans of various Lakes and Rivers between Lake Huron and the river Ottawa to accompany the Geological Reports for 1853–56. *Toronto*, 1857. 4to.
- Report on the Fossil Plants of the Lower Carboniferous and millstone grit formations of Canada : by J. W. Dawson. *Montreal*, 1873. 8vo.
- Reports of progress of the Survey, from its commencement, *etc.* (Atlas of plates.) *Lond. and Montreal*, 1863, *etc.* 8vo. and 4to.
- [*Inland Revenue.*] *See infra* : [*Railways.*]
- [*Intercolonial Railway.*] *See* INTERCOLONIAL RAILWAY.
- [*Legislative Assembly.*] *Journal* . . . vol. 16, Nos. 2, 5, 7. (Appendices 2–4, 13–20, 29–43.) 3 vols. *Toronto*, 1858. 8vo.
- [*Marine and Fisheries Department.*] *Annual Reports* . . . 1868–85. *Ottawa*, 1869–86. 8vo.
(Reports for 1872 and 1884 wanting.)
- Reports of the Chairmen of the Boards of Steamboat Inspection and examiners of masters and mates, the Toronto, Montreal, Quebec and Picton Harbour Commissioners. *Ottawa*, 1878. 8vo.
- [*Military College.*] *Syllabus of the Course of Instruction.* 1885. 8vo.

- CANADA—*continued*.—[*Meteorology*.] Reports of the Meteorological Office. 1872–82, (1884, *etc.*). *Ottawa*, 1872, *etc.* 8vo.
- [Public Works.] General Report of the Commissioner, for 1859. *Tract*. 8vo. vol. 148. *Quebec*, 1860. 8vo.
- Annual Report of the Minister for Public Works. 1867–82 (1888–89). *Ottawa*, 1868–90. 8vo.
- General Report of the Minister for Public Works, for the fifteen years 1867–82. *Ottawa*, 1883. 8vo.
- [Railways.] Annual Report of the Minister for Railways and Canals, 1881 (1882, *etc.*). *Ottawa*, 1882, *etc.* 8vo.
- Maps of the Railways of Canada. *Montreal*, 1882. 8vo.
- Railway Statistics. Reports, 1875, (1876, *etc.*). *Ottawa*, 1876, *etc.* 8vo.
- Report of the Royal Commission. Appendices. *Ottawa*, 1888. 8vo.
- Statistics of Railways and Inland Revenue. *Ottawa*, 1876. 8vo.
- [Shipping.] Correspondence respecting the Deck Loads Act (Canada). *Lond.* 1873. folio.
- (Parliamentary Return.)
- [Time.] Documents relating to the fixing of a Standard of Time and the legalization thereof. *Tract*. 8vo. vol. 521. *Ottawa*, 1891. 8vo.
- CANADIAN INSTITUTE. Annual report, session 1886–87, *etc.* *Toronto*, 1888, *etc.* 8vo.
- Proceedings. 7 vols. *Toronto*, 1879–90. 8vo.
- (Various nos. imperfect. Formerly "Canadian Journal.")
- Proposed change in reckoning the Astronomical Day. Circular-letter addressed to astronomers of all nations [by the Joint Committee of the Canadian Institute and the Astronomical and Physical Society of Toronto]. *Tract*. 8vo. vol. 533. *Toronto*, 1893. 8vo.
- Transactions. Vol. 1, *etc.* *Toronto*, 1890, *etc.* 8vo.
- CANADIAN PACIFIC RAILWAY. An appeal to public opinion against the Railway being carried across the Selkirk Range . . . By Philo Veritas. *Tract*. 8vo. vol. 416. *Montreal*, 1885. 8vo.
- Contract between the Government and the Canadian Pacific Railway: also the Consolidated Railway Act of 1879, and the Act of 1881 amending it. *Ottawa*, 1882. 8vo.
- First Report of the Select Standing Committee on Public Accounts in reference to Expenditure on the Railway between Fort William and Red River. *Ottawa*, 1879. 8vo.
- Minutes of Evidence before the Select Committee . . . appointed to inquire into all matters relating to the Railway and Telegraph west of Lake Superior. *Ottawa*, 1879. 8vo.
- Progress Report on the Canadian Pacific Railway exploratory Survey. By S. Fleming. *Ottawa*, 1872. 8vo.

- CANADIAN PACIFIC RAILWAY**—*continued*. Report of Progress on Explorations and Surveys . . . up to January 1874. By S. Fleming. (Atlas.) *Ottawa*, 1874. 8vo.
- Report on Survey and Preliminary Operations up to 1877. By S. Fleming. *Ottawa*, 1877. 8vo.
- Rapport sur les arpentages et explorations préliminaires accomplis sur le chemin de fer canadien du Pacifique dans les années 1877, 1878, et 1879. Par S. Fleming. *Montreal*, 1879. 8vo.
- Report on an Exploratory Survey for a line of Railway to connect the Canadian Pacific Railway with Barkerville, Cariboo District. By H. P. Bell. *Victoria*, 1887. 8vo.
- Return . . . respecting the Port or Ports most suitable for a Terminus of the Railway in British Columbia, *etc.* *Ottawa*, 1878. 8vo.
- Reports . . . by S. Fleming. 1878 (–1880). *Ottawa*, 1879–80. 8vo.
- The Western Route and Terminus of the Canadian Pacific Railway. *Tract*. 8vo. vol. 439. [*Ottawa?* 1877.] 8vo.
- CANADIAN SOCIETY OF CIVIL ENGINEERS**. Report of Proceedings, Annual General Meeting, February 23, 1893. [*Montreal*,] 1893. 8vo.
- Transactions. Vol. 1, *etc.* *Montreal*, 1887, *etc.* 8vo.
- CANAL ASSOCIATION**. [Collection of Proceedings and Reports.] 1855–75. folio.
- CANDLOT, E.** Ciments et chaux hydrauliques: fabrication, propriétés, emploi. *Paris*, 1891. 8vo.
- Étude pratique sur le ciment de Portland. *Tract*. 8vo. vol. 419. *Paris*, 1886. 8vo.
- CANET, G.** Théorie des freins hydrauliques. *Tract*. 8vo. vol. 312. *Paris*, 1879. 8vo.
- CANEVARI, R.** Cenni sulle condizioni altimetriche ed idrauliche dell' Agro Romano. *Tract*. 8vo. vol. 411. *Roma*, 1874. 8vo.
- Notizie sulle fondazioni dell' edificio pel Ministero delle finanze in Roma. *Tract*. 4to. vol. 73. *Roma*, 1875. 4to.
- (From the *Atti della Reale Accademia dei Lincei*.)
- CANTAGREL, S.** Les voies entièrement métalliques, superstructure métallique, *etc.* *Tract*. 8vo. vol. 428. *Paris*, 1886. 8vo.
- CANTALUPI, A.** Raccolta di tavole e formole ad uso degli ingegneri. *Milano*, 1852. 8vo.
- La scienza e la pratica per la stima delle proprietà stabili colle nozioni su le consegne, riconsegne e bilanci secondo i metodi adottati in Lombardia. Vol. 1. *Milano*, 1856. 8vo.
- Le strade ferrate considerate nei rapporti tecnici, amministrativi e commerciali. 2 vols. *Milano*, 1857–58. 8vo.
- CANTER, O.** Die Haus- und Hôtel-Telegraphie. *Wien*, 1883. 8vo.
- — Zweite Auflage. *Wien*, 1889. 8vo.

CANTERBURY, *New Zealand*. Papers relating to the payment of the provincial contribution of £42,000 to the Canterbury Branch Railways. *Wellington*, 1872. folio.

— Public Works of Canterbury. Appendices. 16 vols.

[*various places*], 1861–68. 8vo. and folio.

a. Provincial Engineer's Reports.

b. Returns showing the cost of the public works and of the working of the Road Boards.

c. Papers relating to the Sumner Road and the Heathcote Navigation.

d. Railway Reports.

e. Reports on the passes through the New Zealand Alps.

f. Reports on the encroachments of the Waimakariri river.

g. Papers relating to the Lyttelton Harbour Works.

h. Telegraph Department of New Zealand.

i. Statistical maps.

k. Topographical maps.

l. Maps and sections illustrating the several plans for connecting Port Lyttelton with the Canterbury Plains.

m. Little River and Great Southern Railways.

o. Timber Bridges.

p. Lyttelton Tunnel: engineering details.

q. Lyttelton Tunnel: geological section.

r. Views illustrating the physical geography of Canterbury.

CANTERBURY COLLEGE, *New Zealand*. See NEW ZEALAND UNIVERSITY.

CANTON, *Ohio*. Report of the . . . Sewer Commissioners . . . October 30th, 1880—April 1st, 1893. *Canton, O.*, 1893. 8vo.

CANTU, C. and OTHERS. *Milano e il suo territorio*. 2 vols.

Milano, 1844. 8vo.

CAPE, G. A., *Jun*. Baths and Wash-houses, etc. *Tract*. 4to. vol. 41.

Lond. 1854. 4to.

CAPE COLONY. Blue-Book for 1881, (1883–85). 4 vols.

Cape Town, 1882–86. folio.

[Continued under the title of:]

— Statistical Register of the Colony . . . for 1886, (1887, etc.).

Cape Town, 1887, etc. folio.

— [Cape Colony. Maps and triangulations.] [1860–70?] folio.

— History, Productions, and Resources of the Cape of Good Hope. Official Handbook, edited by John Noble. *Cape Town*, 1886. 8vo.

— [*Astronomy*.] See CAPE TOWN.—[*Observatory*.]

— [*Buildings*.] Report of the Chief Inspector for 1864.

Cape Town, 1865. folio.

See also *infra*: [*Roads*.]

— [*Census*.] Results of a Census . . . as on the night of Sunday, 5th April, 1891. *Cape Town*, 1892. folio.

— [*Civil Service*.] The Cape of Good Hope Civil Service List: also the Civil Service Calendar, 1887, (1888, etc.).

Cape Town, 1887, etc. 8vo.

CAPE COLONY—*continued*.—[*Coal*.] Coal Deposits in the Indwe Basin and Stormberg Range of mountains. Report by W. Gal-
loway. *Cape Town*, 1889. folio.

— [Engineering.] Report of the Colonial Engineer, for 1863.
Cape Town, 1864. folio.

— [Geology.] Reports of the Geological and Irrigation Surveyor,
1888–90. *Cape Town*, 1891–91. folio.

— [Harbours.] Inspection of Harbours, by Sir John Coode.
[Correspondence.] [Cape Town,] 1876. folio.

— [Hydraulics.] Report of the Hydraulic Engineer, 1877 (–1887).
Cape Town, 1877–87. folio.

(The Reports for the years 1886–87 were published in the Reports of the Inspector of Public Works for those years: since 1887 they have appeared as the "Reports of the Geological and Irrigation Surveyor." See *supra*: [Geology].)

— [Intoxicating Liquors.] Report of the Liquor Laws Commission,
1889–90: with Minutes of Evidence, *etc.*
Cape Town, 1890. folio.

— [Irrigation.] See *supra*: [Geology] and [Hydraulics].

— [Literature and Science.] Reports of the Board of Public
Examiners. *Tract*. 8vo. vol. 148. *Cape Town*, 1861–65. 8vo.

— [Meteorology.] Reports of the Meteorological Commission, *etc.*
Cape Town, 1861, *etc.* folio.

(No reports were issued in the years 1869–74.)

— [Parliament.] Acts of the Parliament of the Colony, 1883,
(1884, *etc.*). *Cape Town*, 1884, *etc.* folio.

— Votes and Proceedings of the House of Assembly.
Cape Town, 1867. folio.

— Votes and Proceedings of the Legislative Council. (Appendices).
Cape Town, 1884, *etc.* folio and 8vo.

— [Public Works.] Annual Report of the Chief Inspector, 1866
(–1882). *Cape Town*, 1867–83. folio.

(Imperfect: wanting several years.)

— [Railways.] Contract with specifications, *etc.*, of a Railway from
Orange River to Kimberley. *Cape Town*, 1885. folio.

— Copies of Reports from the Select Committee of the House
of Assembly, and from the Colonial Civil Engineer, at the Cape
of Good Hope, relating to the proposed construction of a railway
between Cape Town and Wellington. *Tract*. 8vo. vol. 207.

Lond. 1858. 8vo.

— Report from the Select Committee on the Railways Bill.
Cape Town, 1865. 8vo.

— Report of a recent examination of the Country to be traversed
by a Junction Line between the Midland and Eastern Railways:
by Mr. F. G. Slessor. *Cape Town*, 1886. folio.

— Report of a speech delivered in the House of Assembly by
the Commissioner of Crown Lands and Public Works, upon the
motion of Mr. C. T. Jones, M.L.A., for a Select Committee upon
the management of the Railways, 1886. *Tract*. 8vo. vol. 416.

Cape Town, 1886. 8vo.

- CAPE COLONY.—[*Railways*].—*continued*. Report of the General Manager, 1880(–85), 1888, *etc.* *Cape Town*, 1881, *etc.* folio.
- Report of the Select Committee on Railway Management. *Cape Town*, 1886. 8vo.
- Statement showing Expenditure incurred in construction. 1885. *Cape Town*, 1886. folio.
- [Revenue.] Sources of Revenue of the Colony, 1884 (–85), 1887. *Cape Town*, 1884–87. 8vo.
- [Roads.] Report of the Chief Commissioner for 1863. *Cape Town*, 1864. folio.
- Report of the Chief Inspector of Roads, Bridges, and Buildings for 1864 (–66). *Cape Town*, 1865–67. folio.
- CAPE OF GOOD HOPE UNIVERSITY. Calendar, 1889–90. *Cape Town*, 1889. 8vo.
- CAPE TOWN.—[*Harbour*]. Report from the Select Committee appointed to report upon the safety of the port of Table Bay, and the facilities for landing and shipping goods. *Tract.* 8vo. vol. 102. *Cape Town*, 1854. 8vo.
- Report of the Select Committee appointed by the Legislative Council to consider and report upon the Eastern Harbour Works. *Cape Town*, 1867. 8vo.
- [Meteorology.] Report of the Meteorological Committee. Part I. July 1837. *Tract.* 8vo. vol. 130. *Cape Town*, 1837. 8vo. See also *infra*: [Observatory], and *supra*: CAPE COLONY.
- [Observatory.] The Cape Catalogue of 1159 stars, deduced from observations at the . . . Observatory, 1836 to 1861, reduced to the epoch 1860, under the superintendence of E. J. Stone. *Cape Town*, 1873. 8vo.
- The Cape Catalogue of Stars, deduced from observations made 1834 to 1840, and reduced to the epoch of 1840, under the superintendence of E. J. Stone. *Cape Town*, 1878. 8vo.
- Observations made at the . . . Observatory by Lieut.-Col. E. Sabine. Vol. I. Magnetical Observations, 1841 to 1846, with abstracts of the observations from 1841 to 1850 inclusive. Vol. II. Meteorological Observations, 1841 to 1846. *Lond.* 1851. 4to.
- Results of Astronomical Observations made during the years 1834–38 at the Observatory, being the completion of a telescopic survey of the whole surface of the visible heavens, commenced in 1825. By Sir J. F. Herschel. *Lond.* 1847. 4to.
- Results of Astronomical Observations made during the years 1856–57 (and during 1876) by E. J. Stone, under the superintendence of Sir T. Maclear. 2 vols. *Cape Town*, 1871–79. 8vo.
- Results of Meteorological Observations by E. J. Stone, under the superintendence of Sir T. Maclear. *Cape Town*, 1871. 8vo.
- Verification and extension of La Caille's Arc of Meridian at the Observatory. By Sir J. Maclear. 2 vols. 1866. 4to.

- CAPE TOWN—*continued*.—[*Railways*.] Copies of reports from the Select Committee of the House of Assembly and from the Colonial Civil Engineer, relating to the proposed railway between Cape Town and Wellington. *Tract. 8vo. vol. 207. Lond. 1858. 8vo.*
- Report of the proceedings at the first half-yearly general meeting of the Railway and Dock Company. *Tract. 8vo. vol. 138. Lond. 1858. 8vo.*
- [*Sewerage*.] Report on the Sewerage of the City of Cape Town . . . By C. Dunscombe, M.A. *Cape Town, 1891. folio.*
- CAPEL, —. Letter to the Hon. H. L. Corry on the use of High-pressure Steam, *etc.* 1846. See SEAWARD, J., and CAPEL, —.
- CAPELLO, J., and STEWART, B. Results of a comparison of certain traces produced simultaneously by the self-recording magnetographs at Kew and at Lisbon; especially of those which record the magnetic disturbance of July 15, 1863. *Tract. 8vo. vol. 142. [Lond. 1864.] 8vo.*
- (From the Proceedings of the Royal Society.)
- CAPPER, C. The Port and Trade of London; historical, statistical, local, and general. *Lond. 1862. 8vo.*
- CAPPER, C. H. Observations on "Investigator's" pamphlet relative to Railways. *Tract. 8vo. vol. 179. Lond. 1831. 8vo.*
- CAPPER, J., Col. Observations on the Passage to India through Egypt and across the Great Desert. 2nd edition, with additions. *Lond. 1784. 4to.*
- Observations on the Winds and Monsoons. *Lond. 1801. 4to.*
- CAPPER, R. Plan of Swansea Harbour . . . Corrected up to 1879. *4to.*
- CAPRON, J. R. Auroræ: their characters and spectra. *Lond. 1879. 4to.*
- CAPTAIN, H.M.S. Minute by the First Lord of the Admiralty, with reference to H.M.S. "Captain": with minutes of proceedings of the court martial, *etc.* *Lond. 1871. folio.*
- Reply from Sir Spencer Robinson with reference to H.M.S. "Captain." *Lond. 1871. folio.*
- CAPTIER, G. Le marinier. [*5th Int. Congr. Int. Nav.*] [*Paris, 1892.*] *8vo.*
- Stoppages on Canals and Canalised Rivers in France. [*5th Int. Congr. Int. Nav.*] [*Paris, 1892.*] *8vo.*
- CARACCIOLUS, J. B. De lineis curvis liber. *Pisis, 1740. 8vo.*
- CARBUTT, Sir E. H., Bart. Our Guns. *Tract. 8vo. vol. 419. Lond. 1886. 8vo.*
- CARBUTT, M., Lady. Five months' fine weather in Canada, Western U.S., and Mexico. *Lond. 1889. 8vo.*
- CARDERERA, M., and ALONSO Y MILLAN, J. Taquimetría: exposición de los métodos modernos para el levantamiento de planos, *etc.* *Madrid, 1877. 8vo.*

- CARDIFF.** An Act for supplying with water the Town and Port of Cardiff, *etc.* *Lond.* 1850. folio.
- Minutes of proceedings and minutes of evidence, before the Select Committee on the Cardiff Corporation Bill [for enabling the Mayor and Corporation to obtain an additional supply of Water from the River Taff Fawr, and for other purposes of improvement.] *Lond.* 1884. folio.
- Port of Cardiff. Plan of the proposed new works. 1865. 8vo.
- *Free Library, Museum and Science and Art Schools.* Annual Report, 1888–89. *Cardiff*, 1889. 8vo.
- *University College of South Wales and Monmouth.* Calendar, 1888–89, (1889–90, *etc.*). *Cardiff*, 1888, *etc.* 8vo.
- Prospectus, 1891–92. *Cardiff*, 1891. 8vo.
- CARDIFF AND MONMOUTHSHIRE VALLEYS RAILWAY.** Minutes of proceedings, evidence and speech taken before the Select Committee of the House of Lords. *Lond.* 1887. folio.
- CARDINALI, F.** Raccolta (Nuova raccolta) d'autori italiani che trattano del moto dell' acque. 4^a edizione. 17 vols. *Bologna*, 1821–45. 4to.
- CAREY, A.** Specification [for] improvements in Machinery for Digging Land. 1881. *See* CROSSBY, W. E., and CAREY, A.
- CAREY, A. E.** The Harbours and Ferry System of Denmark. [2nd *Int. Mar. Congr.*] *Lond.* 1893. 8vo.
- The La Guaira Harbour Works, Venezuela. [2nd *Int. Mar. Congr.*] *Lond.* 1893. 8vo.
- CARGILL, T.** Sewage, and its general application to grass, cereal, and root Crops, *etc.* *Tract.* 8vo. vol. 169. *Lond.* 1869. 8vo.
- The Strains upon Bridge Girders and Roof Trusses. *Lond.* 1873. 8vo.
- CARLETTI, C.** Riflessioni sulla cubatura delle terre, *etc.* *Tract.* 8vo. vol. 338. *Torino*, 1882. 8vo.
- CARLILE, H.** Allgemeine Darstellung des centralen Eisenbahn-Abrechnung-Systems in England und Betrachtungen über die Vortheile der Einführung dieses Systems in Russland. *Tract.* 8vo. vol. 319. *Riga*, 1880. 8vo.
- [Another edition : in Russian.] *Tract.* 8vo. vol. 319. *Riga*, 1880. 8vo.
- Report on trials made with the Heberlein self-acting Railway-break on the Bergisch-Markisch Railway. *Tract.* folio. vol. 25. *Riga*, 1880. folio.
- CARLILE, W. O., Lieut., R.A., and MARTINDALE, B. H., Lieut.-Col.** Recollections of Canada. *Quebec.* *Lond.* 1873. 4to.
- CARLISLE.** Copy of Report to the Board of Trade . . . on the Railway Accident at Carlisle (Citadel) Station : by Col. Rich. *Lond.* 1890. folio.

CARLISLE—*continued*. Report from the Committee on the Roads between Carlisle and Port Patrick. *Lond.* 1811. folio.

— [*Sewage.*] Information [on Sewage Disposal] obtained . . . on the visit of a deputation from the Town Council of . . . Carlisle to Doncaster, *etc.* *Tract.* 8vo. vol. 341. *Carlisle*, 1880. 8vo.

— [*Water Supply.*] Prospectus of a proposed Joint Stock Company to be formed for supplying the City of Carlisle and its environs with Water from the river Eden. *Tract.* 8vo. vol. 68.

Carlisle [1830 ?] 8vo.

CARLISLE CANAL. An Act for making and maintaining a navigable Canal from Carlisle to the Solway Frith, *etc.*

Lond. 1819. folio.

CARLSRUHE. — *Grossherzogliche Ingenieurschule.* Die Eisenbahnbauten bei Kehl: Rheinbrücke, Bahnhof, Kinzig und Schutterbrücke. Nach den Materialien der Grossherzoglich Badischen Oberdirektion des Wasser- und Strassenbaues. *Carlsruhe*, 1860. folio.

— *Polytechnische Schule.* Programm für das Jahr 1868–69.

Karlsruhe, 1868. 8vo.

— *Wasser- und Strassenbau-Amt.* Kanalisation der Haupt- und Residenzstadt Karlsruhe.

Karlsruhe, [1881.] folio.

CARMICHAEL, A., and BROWNLIE, J. The Edinburgh Smoke-doctor. *Tract.* 8vo. vol. 211.

Edinburgh, 1757. 8vo.

CARMICHAEL, J. A letter to Lord Palmerston on the destruction of Greytown by the United States corvette "Cyane" on the 13th July, 1854. *Tract.* 8vo. vols. 440 and 439. *Liverpool*, 1856. 8vo.

CARMICHAEL, W. V. Liquid Fuel in Ocean Steamers. [Papers of the Shipmasters' Soc., No. 9.]

Lond. 1891. 8vo.

CARMIGNANI, F. Nuova raccolta d'autori che trattano del moto dell' acque. 7 vols.

Parma, 1766–68. 4to.

CARNARVONSHIRE RAILWAY. Plans of the Carnarvonshire Railway, with the Aberystwith and Welsh Coast Railway.

[. . .] 8vo.

— Plans and section of the Carnarvon Railway. [. . .] 12mo.

CARNEGIE, PHIPPS and Co. Pocket companion, containing useful information and tables appertaining to the use of Wrought-Iron and Steel.

Pittsburg, Pa., 1889. 8vo.

CARNOT, L. N. M. De la défense des places fortes.

Paris, 1812. 4to.

— Mémoire sur la relation qui existe entre les distances respectives de cinq points quelconques pris dans l'espace; suivi d'un essai sur la théorie des transversales.

Paris, 1806. 4to.

— Principes fondamentaux de l'équilibre et du mouvement.

Paris, 1803. 8vo.

— Réflexions sur la métaphysique du calcul infinitésimal. 4^e édition.

Tract. 8vo. vol. 160.

Paris, 1860. 8vo.

CARNOT, N. L. S. *Réflexions sur la puissance motrice du feu.*

Paris, 1878. 4to.

— *Reflections on the Motive-power of Heat, and on machines fitted to develop that power. Edited by R. H. Thurston.*

Lond. 1890. 8vo.

CAROLINA OIL AND CREOSOTE COMPANY. *Carbonized and creosoted timber and cross-ties and wood creosote oil. Tract. 8vo. vol. 489.*

Wilmington, N.C., [] 8vo.

CARPENTER, A. *Some points in the physiological and medical aspect of Sewage Irrigation; to which is also appended a paper on the influence of sewer gas on the public health. Tract. 8vo. vol. 203.*

Lond. 1870. 8vo.

CARPENTER, W. *Is Water convex after all? A renewal of the protest against Mr. J. H. Walsh's decision in the Bedford Level Survey. Tract. 8vo. vol. 212.*

Lewisham, 1871. 8vo.

— *Water not convex: the earth not a globe. Demonstrated by A. R. Wallace, by experiments conducted on the old Bedford Canal. Tract. 8vo. vol. 212.*

Lond. 1871. 8vo.

CARPMAEL, A. and E. *Patent Laws of the world, etc.*

Lond. 1885. 8vo.

CARPMAEL, W. *Law Reports of Patent Cases. Lond. 1843. 8vo.*

— *The Law of Patents for Inventions, familiarly explained.*

Lond. 1832. 8vo.

— — 5th edition. *Tract. 8vo. vol. 365.*

Lond. 1852. 8vo.

— — 6th edition.

Lond. 1860. 8vo.

CARR, G. S. *A synopsis of elementary results in Pure Mathematics: containing propositions, formulæ, and methods of analysis, with abridged demonstrations. Supplemented by an index to the papers on pure mathematics, which are to be found in the principal journals and transactions of learned societies, both English and foreign, of the present century.*

Lond. 1886. 8vo.

CARR, H. *Metropolitan Street Traffic. Suggested improvements. Tract. 8vo. vol. 234.*

Lond. 1871. 8vo.

— *Our Domestic Poisons; or the poisonous effects of certain Dyes and colours used in domestic fabrics. 2nd edition.*

Lond. 1879. 8vo.

— — 3rd edition. (Sequel.)

Lond. 1880. 8vo.

— *Blackfriars Bridge. Contract for removal of existing bridge and for building the proposed new bridge, etc. 1869. See CUBITT, J., and CARR, H.*

— *The Bridges of London. Tract. 4to. vol. 68. Lond. 1871. 4to.*

(From the Trans. Inst. British Architects.)

CARR, R., and DUCKHAM, F. E. *The Docks of London on the North of the Thames and their equipment. [2nd Int. Mar. Congr.] [Lond. 1893.] 8vo.*

CARRINGTON, F. A. *Plan of the town and part of the settlement of New Plymouth, New Zealand. [] 8vo.*

- CARRINGTON, R. C. Glossary of French terms adopted on French charts and maps, and in sailing directions. *Calcutta*, 1879. 8vo.
- Return of Wrecks and casualties in Indian waters for 1877. *Tract. folio. vol. 28.* *Calcutta*, 1878. folio.
- Spheroidal Tables, showing the length in feet of a degree, minute, and second of latitude and longitude. *Tract. 8vo. vol. 290.* *Roorkee*, 1876. 8vo.
- Table for converting French mètres and décimètres into English feet and fathoms. *Tract. 8vo. vol. 172.* *Lond.* 1865. 8vo.
- — 2nd edition. *Tract. 8vo. vol. 433.* *Lond.* 1871. 8vo.
- Table of Distances at which objects can be seen at Sea. *Tract. folio. vol. 40.* [1875?] folio.
- Table of Natural Scales, showing the proportion which the space representing a mile, on a chart or map, bears to the actual mile on the earth's surface. *Tract. 8vo. vol. 433.* *Calcutta*, 1877. 8vo.
- CARRINGTON, T. H. Wire Tramways: a description of the various systems of wire-rope transport. *Tract. 8vo. vol. 301.* *Lond.* [1878?] 8vo.
- CARRO, T. Navigation des fleuves et rivières; canalisation au moyen de barrages automobiles; emploi des forces hydrauliques à la traction des bateaux. *Tract. 8vo. vol. 477.* *Meaux*, 1887. 8vo.
- CARROLL, E. B. Comparison of the Rajpootana metre gauge Railway with the G. I. P. and B. B. and C. I. standard gauge-railways. *Tract. folio. vol. 25.* *Bombay*, 1879. folio.
- CARRON, W. Narrative of an expedition for the exploration of the country lying between Rockingham Bay and Cape York. *Tract. 8vo. vol. 396.* *Sydney*, 1849. 8vo.
- CARRUTHERS, G. T. The Cause of Electricity; with remarks on chemical equivalents. *Tract. 8vo. vol. 429.* *Benares*, 1886. 8vo.
- The Cause of Light. *Tract. 8vo. vol. 480.* *Subathu*, 1888. 8vo.
- The Cause of Magnetism. *Tract. 8vo. vol. 457.* *Subathu*, 1888. 8vo.
- The Cause of Terrestrial Magnetism. *Tract. 8vo. vol. 457.* *Subathu*, 1888. 8vo.
- The Planets upon Cardioides. *Tract. 4to. vol. 111.* *Subathu*, 1888. 4to.
- CARSTAIRS, MITCHELL and Co. Dundee Harbour Arbitration. Representation to J. Hawkshaw, Esq., the arbiter. *Tract. 4to. vol. 49.* [Dundee?] 1863. 4to.
- CARSWELL, T. P. Automatic Electric Lighting of Trains. *Tract. 8vo. vol. 515.* *Glasgow*, 1887. 8vo.
- CART, *River*. Report of the Committee on the River Cart Survey. *Tract. 8vo. vol. 102.* *Paisley*, 1854. 8vo.
- CARTER, H. Sanitary Science and Practice. Prospectus of the Sanitary Engineering and Ventilation Company. *Tract. 4to. vol. 87.* *Lond.* 1881. 4to.

CARTER, H. J. Geological papers on Western India, including Cutch, Sind, and the south-east coast of Arabia; to which is appended a summary of the geology of India generally. (Atlas of plates and maps.) *Bombay*, 1857. 4to.

CARTER, J. R. Observations on the proposed Improvement of the Nene outfall, in reference to the drainage of South Holland. *Tract. 8vo. vol. 12. Spalding*, 1822. 8vo.

CARTER, S. Railway Legislation. *Tract. 8vo. vol. 435. Lond.* 1874. 8vo.

CARTIER, A. DE. Manufactory of Iron-Minium situate in Anderghem, near Brussels, etc. *Tract. 8vo. vol. 126. Brussels* [1860?] 8vo.

CARUSSO, C. D. Notice sur les cartes topographiques de l'état-major général d'Autriche-Hongrie. *Genève*, 1887. 8vo.

— Importance de la cartographie officielle. *Tract. 8vo. vol. 410. Geneva*, 1886. 8vo.

CARUS-WILSON, C. A. On the behaviour of Steel under mechanical stress. *Tract. 8vo. vol. 495. [Lond.]* 1890. 8vo.
(From the "Philosophical Magazine.")

— The rupture of Steel by longitudinal stress. *Tract. 8vo. vol. 517. Lond.* 1890. 8vo.
(From the Proceedings of the Royal Society.)

CARVALHO, J. C. DE. 1ª conferencia sobre o projecto da estrada de ferro D. Pedro I. *Tract. folio. vol. 39. Rio de Janeiro*, 1885. folio.

— Signaes electricos à noite organisados para uso da marinha de guerra Brasileira. *Tract. 8vo. vol. 424. Rio de Janeiro*, 1886. 8vo.

— Viagens ás provincias do sul do Brazil. *Tract. 8vo. vol. 426. Rio de Janeiro*, 1884. 8vo.

CARVER, J. Travels through the interior parts of North America in the years 1766, 1767 and 1768. *Lond.* 1778. 8vo.

CARY, J. A new map of Monmouthshire. *Lond.* 1828. 8vo.

— Inland Navigation; or select plans of the several navigable canals throughout Great Britain. *Lond.* 1795. 4to.

CASA-CARADOC. A Visit to the Château Casa-Caradoc. *Tract. folio. vol. 35. Lond.* 1875. folio.

CASALONGA, D. A. Eléments proportionnels de construction mécanique. *Paris*, 1874. 4to.

CASALONGA, D. A., and CASALONGA, C. Étude comparative des marteaux-pilons et presses hydrauliques pour le travail des grosses pièces de forge. *Paris*, 1888. 8vo.

(From the Bulletin de la Société des Anciens Élèves des Écoles nationales d'Arts et Métiers.)

CASONI, G. Estratto di un ragguaglio . . . intorno ad un opera inedita del commendatore A. Cialdi sulla navigazione del Tevere e sulla foce di Fiumicino. *Tract. 8vo. vol. 309. Venezia*, 1846. 8vo.

- CASPERSSON, C. A. Om den vid bessemerbläsningar rådande värmegradens inflytande på de bekomna götens egenskaper. *Tract.* 8vo. vol. 466. *Stockholm*, 1882. 8vo.
- CASPIAN SEA. [Report by the Russian Hydrographic Dept.] *St. Petersburg*, 1877. 8vo.
- CASSAGNES, G. A. La sténo-télégraphie. *Tract.* 4to. vol. 105. *Paris*, 1886. 4to.
- Steno-telegraphy. *Tract.* 8vo. vol. 361. *Paris*, 1884. 8vo.
- CASSAL, C. E. First report upon investigations in connection with the "Amines" process [for purifying sewage]. *Tract.* 8vo. vol. 496. *Lond.* 1890. 8vo.
- CASSÉ, E. Épure et construction des aérostats et montgolfières. *Tract.* 8vo. vol. 363. *Paris*, 1883. 8vo.
- CASSELS, W. R. Cotton : an account of its culture in the Bombay Presidency. *Bombay*, 1862. 8vo.
- CASSINI DE THURY, C. F. Eléments d'astronomie. 1740. *See* ACADEMIE DES SCIENCES.
- La méridienne de l'observatoire royal de Paris. 1744. *See* ACADEMIE DES SCIENCES.
- Tables astronomiques, etc. 1740. *See* ACADEMIE DES SCIENCES.
- CASTELLANI, J. Dell' immediata influenza delle selve sul corso delle acque, etc. [2 parts.] *Torino*, 1818-19. 4to.
- CASTLE, E. J. A practical treatise on the Law of Rating. *Lond.* 1879. 8vo.
- CASTLE, H. J. Engineering Field Notes on parish and railway Surveying and Levelling. 2nd edition. *Lond.* 1847. 8vo.
- On Railway Curves. *Tract.* 8vo. vol. 70. *Lond.* [1845?] 8vo.
- CASTLE, H. J., and E. J. Practical remarks on the principles of Rating as applied to the proper and uniform assessment of railways, gasworks, waterworks, mines, cemeteries, etc. *Lond.* 1869. 8vo.
- CASTLETON. Report on an explosion at Castleton, near Manchester, occurring on Mr. Riley's premises : by Capt. J. P. Cundill. *Lond.* 1882. folio.
- CASTOR, A. Recueil d'appareils à vapeur employés aux travaux de navigation et de chemins de fer. (Atlas of plates.) *Tract.* 8vo. vol. 160. *Paris*, 1860. 8vo. and folio.
- CASTRO, M. F. DE. Descripción de un sistema de señales eléctricas para evitar accidentes en los caminos de hierro, y examen de los demas sistemas eléctricos propuestos, con un prólogo de D. Meliton Martin. *Madrid*, 1858. 8vo.
- L'électricité et les chemins de fer : description et examen de tous les systèmes proposés pour éviter les accidents sur les chemins de fer au moyen de l'électricité. 2 vols. *Paris*, 1859. 8vo.
- CATANEO, P. I quattro primi libri di architettura, etc. *Vinegia*, 1554. folio.

- CATARACT CONSTRUCTION COMPANY. Annual report, July, 1891.
New York, 1891. 4to.
- CATES, W. L. R. A Dictionary of general Biography. 3rd edition.
Lond. 1881. 8vo.
- CATON, J. D. Artesian Wells. *Tract.* 8vo. vol. 296.
Chicago, 1874. 8vo.
- CATTERMOLE, W. The advantages of Emigration to Canada. *Tract.*
8vo. vol. 67. Woodbridge, 1831. 8vo.
- CAUCHY, A. L. Rapport sur un mémoire de L. Lalanne. 1843.
See ÉLIE DE BEAUMONT, J. B. A. L., LAMÉ, G., and CAUCHY, A. L.
- CAUCHY, P. F. Mémoire couronné en réponse à la question proposée par l'Académie Royale des Sciences et Belles-lettres de Bruxelles ; "décrire la constitution de la province de Namur, les espèces minérales et les fossiles accidentels que les divers terrains renferment, avec l'indication des localités et la synonymie des auteurs qui en ont déjà traité." *Tract.* 4to. vol. 22.
Bruxelles, 1825. 4to.
- CAUMONT, A. DE. Histoire de l'architecture religieuse au Moyen Âge. Nouvelle édition. Paris, 1841. 8vo.
- CAUS, S. DE. Les raisons des forces mouvantes avec diverses machines.
Francfort, 1615. folio.
- New and rare inventions of Water-Works, shewing the easiest waies to raise water higher than the spring . . . Translated into English by J. Leak. Lond. 1659. folio.
- CAUTLEY, Sir P. T., Col. A disquisition on the heads of the Ganges and Jumna canals, North-Western Provinces, in reply to strictures by Major-General Sir A. Cotton. Lond. 1864. 8vo.
- The Ganges Canal : a reply to statements made by Major-General Sir Arthur Cotton on the projection of the Ganges canal works. (Printed for private circulation.) Lond. 1863. 8vo.
- On the use of Wells, in Foundations ; as practised by the natives of the northern Doab. *Tract.* 8vo. vol. 54. [Calcutta, 1839.] 8vo.
- Report on the Ganges Canal works from their commencement until the opening of the canal in 1854. (Atlas of plans.) 4 vols.
Lond. 1860. 8vo., 4to., and folio.
- A valedictory note to Major-General Sir Arthur Cotton respecting the Ganges Canal. (Printed for private circulation.) Lond. 1864. 8vo.
- CAUTY, W. Nature, Philosophy, and Art in friendship, an essay in four parts. I. Demonstrating the necessity and practicability of building all manner of houses proof against fire and vermin, etc. II. An entire new plan of constructing chimnies, so as the smoke cannot reverberate, etc. 2nd edition. *Tract.* 8vo. vol. 211.
Lond. 1775. 8vo.
- CAUVIN, J. A treasury of the English and German Languages.
Lond. 1870. 8vo.
- CAVALLI, G. Aperçu sur les canons rayés se chargeant par la bouche et par la culasse et sur les perfectionnements à apporter à l'art de la guerre en 1861. Turin, 1862. 4to.
(From the Mémoires de l'Académie des Sciences de Turin.)

CAVALLI, G.—*continued*. Mémoire sur la théorie de la résistance statique et dynamique des solides, surtout aux impulsions comme celles du tir des canons. *Turin*, 1863. 4to.

(From the Mémoires de l'Académie des Sciences de Turin.)

— Memoria su varii perfezionamenti militari che comprende alcuni cenni sui cannoni caricantisi dalla culatta e sui cannoni rigati per l'artiglieria . . . e dissertazioni relative ai mezzi di accrescere la mobilità dell' artiglieria, *etc.* *Torino*, 1856. 4to.

(From the Memorie della R. Accademia delle Scienze di Torino.)

— Memoria sul delineamento equilibrato degli archi in muratura e in armatura. *Torino*, 1859. 4to.

(From the Memorie della Reale Accademia delle Scienze di Torino.)

CAVALLO, T. A complete treatise of Electricity in theory and practice. *Lond.* 1777. 8vo.

— 4th edition. 3 vols. *Lond.* 1795. 8vo.

— Description and use of the Telescopic Mother-of-Pearl Micro-meter. *Tract.* 8vo. vol. 504. *Lond.* 1793. 8vo.

— The history and practice of Aërostation. *Lond.* 1785. 8vo.

— A treatise on Magnetism, in theory and practice: with original experiments. 2nd edition, with a supplement. *Lond.* 1795. 8vo.

CAVAN, LEITRIM, AND ROSCOMMON LIGHT RAILWAY AND TRAMWAY. Report by the Board of Trade on the Classification of Merchandise Traffic, and schedule of maximum rates. *Lond.* 1891. folio.

CAVANI, F. Corso di celerimensura. *Bologna*, 1883. 8vo.

CAVENDISH, Hon. H. An account of a new Eudiometer. *Tract.* 4to. vol. 20. *Lond.* 1783. 4to.

(Read at the Royal Society, January 16, 1783.)

— Electrical Researches. Edited by J. C. Maxwell. *Cambridge*, 1879. 8vo.

CAVENDISH SOCIETY. Works of the Cavendish Society.

Chemical Method: notation, classification, and nomenclature. By A. Laurent, *etc.* *Lond.* 1854. 8vo.

Chemical Reports and Memoirs . . . Edited by T. Graham. *Lond.* 1848. 8vo.

Elements of Chemical and Physical Geology. By G. Bischof. 8 vols. *Lond.* 1854-59. 8vo.

Handbook of Chemistry. By L. Gmelin. 19 vols. *Lond.* 1848-72. 8vo.

Life of the Hon. Henry Cavendish, including abstracts of his . . . Scientific Papers. By G. Wilson. *Lond.* 1851. 8vo.

Memoirs of the Life and Scientific Researches of John Dalton. By W. C. Henry. *Lond.* 1854. 8vo.

Physiological Chemistry: by C. G. Lehmann. Translated by G. E. Day. 3 vols. *Lond.* 1851-54. 8vo.

Atlas of Physiological Chemistry . . . A Supplement to Lehmann's Physiological Chemistry. By O. Funke. *Lond.* 1853. 4to.

CAVOUR CANAL. Italian Irrigation Canal Company (Canal Cavour). [Prospectus.] *Tract.* 8vo. vol. 133. *Lond.* 1862. 8vo.

CAWSTON, A. A comprehensive Scheme for Street Improvements in London. *Lond.* 1893. 4to.

- CAXTON, W. Caxton and the art of printing. James Watt and the steam engine. *Lond.* [1852.] 8vo.
- CAY, W. D. On the construction of Marine Works with Concrete bags and on the plant used for their deposit : being a paper read before the Royal Scottish Society of Arts on December 12, 1887. *Tract.* 8vo. vol. 457. *Edinburgh*, 1888. 8vo
(From the Transactions of the Society.)
- CAYLEY, A. Collected Mathematical Papers. 6 vols.
(In progress.) *Cambridge*, 1889-93. 4to.
- [A collection of Mathematical Papers by A. Cayley. 1852-67.] 4to.
- List of Cayley's mathematical works, 1841-62. *Lond.* [1863?] 8vo.
- CAYLEY, Sir G., Bart. Essay on the means of promoting Safety in Railway Carriages. *Tract.* 8vo. vol. 79. *Lond.* 1841. 8vo.
- CAYLEY, J. J., BOYES, J., and BRIDGMAN, H. H. Scheme for a central Fish Market for London. *Tract.* folio. vol. 29. *Lond.* 1881. folio.
- CAZIN, A. Traite théorique et pratique des piles électriques. Annoté et publié par A. Angot. *Paris*, 1881. 8vo.
- CÉARD, N. Mémoire et observations historiques et critiques sur la route du Simplon. *Tract.* 4to. vol. 4. *Paris*, 1820. 4to.
- CEFFALONIE, M. C. DE, Count. Monument élevé à la gloire de Pierre-le-Grand, ou relation des travaux et des moyens mécaniques, etc. *Paris*, 1777. folio.
- CELLE, E. Hygiène pratique des pays chauds, etc. *Paris*, 1848. 8vo.
- CENTRAL AND SOUTH AMERICAN CABLE EXPEDITION. Soundings taken by the Central and South American Cable Expedition, 1881-1882, the Spanish National Cable Expedition, 1883-1884, the India Rubber, Gutta-Percha and Telegraph Works Company, Limited, 1884-1885 and 1885-1886. *Lond.* 1881-1886. 8vo.
- CENTRAL ARGENTINE RAILWAY. Report of proceedings at the fifth yearly ordinary general meeting. *Tract.* 8vo. vol. 179. *Lond.* 1869. 8vo.
- Specifications for Bridge Work, roofing, steel rails, etc. 1884-86-87. folio.
- CENTRAL KENTISH RAILWAY, and SANDWICH HARBOUR COMPANY. [Prospectus, etc.] *Tract.* folio. vol. 49. *Lond.* [1836.] folio.
- CENTRALVEREIN FÜR HEBUNG DER DEUTSCHEN FLUSS- UND KANALSCHIFFFAHRT. Bericht der Kommission für Vermessung der Binnenschiffe über die verschiedenartigen Schiffsvermessungen auf der Elbe und den östlichen Wasserstrassen, sowie Vorschläge bezüglich einer einheitlichen Vermessung. *Berlin*, 1888. 4to.
- CERBELAUD, G. Les chemins de fer. 1888. See LEFÈVRE, P., and CERBELAUD, G.

- CERDA, I. Teoría general de la urbanización y aplicación de sus principios y doctrinas á la reforma y ensanche de Barcelona. 2 vols. *Madrid*, 1867. 8vo.
- CERERO, R. Estudio sobre la resistencia y estabilidad de los edificios sometidos a huracanes y terremotos. *Madrid*, 1890. 8vo.
- Estudios sobre las máquinas empleadas en las construcciones y aplicación de la fuerza motora del vapor en los trabajos públicos. *Tract. 8vo. vol. 160. Madrid*, 1865. 8vo.
- Memoria sobre las armaduras destinadas a sostener las cubiertas de los edificios. *Tract. 8vo. vol. 141. Madrid*, 1863. 8vo.
- Noticia sobre el uso y aplicaciones del cemento fabricado en las provincias Vascongadas. *Tract. 8vo. vol. 209. Madrid*, 1871. 8vo.
- CERMOISE, H. Deux ans à Panama. *Tract. 8vo. vol. 417. Paris*, 1886. 8vo.
- CERNUSCHI, H. Bi-metallism at 15½, a necessity for the Continent, for the United States, for England. *Lond.* 1881. 8vo.
- Bi-metallism in England and abroad: an answer to a letter from H. H. Gibbs. *Lond.* 1879. 8vo.
- The Great Metallic Powers. *Tract. 8vo. vol. 409. Lond.* 1885. 8vo.
- CESARINI, G. Sulla inalveazione del Tevere nei prati di Castello. *Tract. 8vo. vol. 322. Roma*, 1880. 8vo.
- Un altro modo di provvedere alla sistemazione del Tevere. *Tract. 4to. vol. 83. Milano*, 1878. 4to.
- CESSART, L. A. DE. Description des travaux hydrauliques de L. A. de Cessart. 2 vols. *Paris*, 1806–08. 4to.
- CEYLON. *See INDIA. Ceylon.*
- CHABANNES, — DE, *Marquis*. Explanation of a new method for Warming and Purifying the Air in private houses and public buildings. *Tract. 8vo. vol. 26. Lond.* 1815. 8vo.
- On conducting Air by forced Ventilation, and regulating the temperature in dwellings. *Lond.* 1818. 8vo.
- CHABRIER, E. Les chemins de fer d'intérêt local sur routes. *Tract. 8vo. vol. 304. Paris*, 1879. 8vo.
- Rapport sur les chemins de fer économiques. *Tract. 8vo. vol. 238. Paris*, 1874. 8vo.
- Société des agriculteurs de France: mémoire à l'appui d'une proposition sur l'organisation du service vicinal en France. *Tract. 8vo. vol. 223. Paris*, 1871. 8vo.
- CHADWICK, D. Borough of Salford. Report on the proposed establishment of a Police Superannuation Fund. *Tract. 8vo. vol. 117. Salford*, 1858. 8vo.
- Free public Libraries and Museums; their usefulness . . . as compared with the libraries of Sunday-schools, etc. *Tract. 8vo. vol. 155. Lond.* 1887. 8vo.

- CHADWICK, D.—*continued*. Is Profit-Sharing desirable? In what trades is it practicable? *Tract. 8vo. vol. 489. Lond. 1890. 8vo.*
- On the Social and Educational Statistics of Manchester and Salford. *Tract. 8vo. vol. 134. Manchester, 1862. 8vo.*
- CHADWICK, Sir E. Address as President of the Association of Public Sanitary Inspectors on House Drainage. *Tract. 8vo. vol. 452. Lond. 1884. 8vo.*
- Alternative remedies for Ireland. *Tract. 8vo. vol. 452. Lond. 1887. 8vo.*
- Authoritative Recognition of distinguished public services [more particularly those of Sir E. Chadwick]. *Tract. 8vo. vol. 483. [1888?] 8vo.*
- Commentaries on the Report of the Royal Commission on Metropolitan Sewage discharge . . . 3rd edition. *Tract. 8vo. vol. 452. Lond. 1885. 8vo.*
- Committee on Sanitary Organization. Dedications and testimonies to Edwin Chadwick, Esq., C.B. *Tract. 8vo. vol. 452. Lond. 1884. 8vo.*
- The Duration of Life. *Tract. 8vo. vol. 452. Lond. 1885. 8vo.*
- Economical results of different principles of Legislation and Administration in Europe. *Tract. 8vo. vol. 452. Lond. 1859. 8vo.*
- Educational progress: a memoir of the late Horace Grant, Esq., as a successful experimentalist to determine the receptivity of children in primary education. *Tract. 8vo. vol. 452. Lond. [1880?] 8vo.*
- The Elementary Education Question and the half-time system. *Tract. 8vo. vol. 452. Lond. 1887. 8vo.*
- Explanation of the character of the Lambeth Parish Half-time School at Norwood. *See NORWOOD.—Lambeth Parish Half-Time School. Royal Visit, etc. 1887.*
- The Financial Value of Sanitary Science. *Tract. 8vo. vol. 452. Lond. 1887. 8vo.*
- Form of Statistical Returns for the promotion of preventive as well as of curative science. *Tract. 8vo. vol. 452. Lond. [1870?] 8vo.*
- The general History of principles of Sanitation. *Tract. 8vo. vol. 490. Lond. 1889. 8vo.*
- The Jubilee of Sanitary Science: being the annual address at the anniversary dinner of the Association of Public Sanitary Inspectors, February 5, 1887. *Tract. 8vo. vols. 438 and 452. Lond. 1887. 8vo.*
- A lecture on the . . . importance of open Competitive Examinations for admission to the public service. *Tract. 8vo. vol. 452. Lond. 1857. 8vo.*

- CHADWICK, Sir E.—*continued*. The metropolitan and provincial Police. *Tract. 8vo. vol. 452.* Lond. 1886. 8vo.
- National Gains by Sanitation. *Tract. 8vo. vol. 452.*
(From *Sanitary Engineering*.) Lond. 1887. 8vo.
- On County Government in combination with Union Organisation. *Tract. 8vo. vols. 311 and 452.* Lond. 1879. 8vo.
- On imperfect Local Self-government and its results in Manchester. *Tract. 8vo. vol. 452.* Lond. 1883. 8vo.
- On international Securities for the Lives and Health of Travellers. *Tract. 8vo. vol. 452.* 1887. 8vo.
- On the economical principles of a reform of the legislation and administration for the Conveyance of Passengers and Goods on Railways. *Tract. 8vo. vol. 146.* Lond. 1865. 8vo.
- On the effect of Manufacturing Distress, on manufacturing progress, and on the improvement of the condition of the wage classes, in agriculture as well as in manufactures. *Tract. 8vo. vols. 146 and 452.* Lond. 1864. 8vo.
- On the Evils of Disunity in central and local administration, especially with relation to the Metropolis; and also on the new centralisation for the people, together with improvements in codification and in legislative procedure. Lond. 1885. 8vo.
- On the Manual Labourer as an investment of capital. *Tract. 8vo. vol. 134.* Lond. 1862. 8vo.
- On the sanitary and economical Advantages of smooth and impermeable Street Surfaces. *Tract. 4to. vol. 67.* Lond. 1871. 4to.
(From the Journal of the Society of Arts.)
- Avantages sanitaires et économiques des rues à surfaces unies et imperméables. *Tract. 8vo. vol. 452.*
Londres et Paris, 1871–72. 8vo.
- Position of Sanitation in England. *Tract. 8vo. vols. 418 and 452.* Lond. 1884. 8vo.
- The present and general condition of Sanitary Science. *Tract. 8vo. vol. 482.* Lond. 1889. 8vo.
- The present Epidemic in the Metropolis. Prevention of children's epidemics by sanitation. *Tract. 8vo. vol. 452.*
East Sheen, 1887. folio.
- Presidential Address to the delegates of the Congress held at Amsterdam. *Tract. 8vo. vol. 306.* Lond. 1879. 8vo.
- Public Health. *Tract. 8vo. vol. 297.* Lond. 1877. 8vo.
- Public Health: specifications of the sanitary requirements for house construction. *Tract. 8vo. vol. 182.* Lond. 1868. 8vo.
- Public Health local sanitary organisation: the officer of health. *Tract. 8vo. vol. 452.* Lond. 1878. 8vo.
- Report on Dwellings characterised by cheapness combined with the conditions necessary for health and comfort. *Tract. 8vo. vol. 181.* [Lond. 1869.] 8vo.

- CHADWICK, *Sir E.*—*continued.* Sanitary principles of School Construction. *Tract.* 8vo. vol. 216. *Lond.* 1871. 8vo.
- Sanitary Progress : circulation or stagnation. *Tract.* 8vo. vol. 325. *Lond.* 1881. 8vo.
- Sanitary Progress : prevention of epidemics. *Tract.* 8vo. vols. 341 and 452. *Lond.* 1882. 8vo.
- Sanitary Progress : progress in preventive, as compared with that in curative science. *Tract.* 8vo. vol. 452. *Lond.* 1881. 8vo.
- Sanitary Review of the Session. *Tract.* 8vo. vol. 452. *Lond.* 1885. 8vo.
- (Read at the monthly meeting of the Association of Public Sanitary Inspectors.)
- The Sanitation of London and the suburbs. *Tract.* 8vo. vol. 452. *Lond.* 1886. 8vo.
- Sanitation *versus* Militarism. *Tract.* 8vo. vol. 452. *Lond.* 1886. 8vo.
- Sewage Farming : example of the separate system. *Tract.* 8vo. vol. 452. [*Lond.* 1885.] 8vo.
- Suggestions for the Competition in the Sanitation of the Dwellings of the wage classes for the prize to be awarded by the King of the Belgians. - *Tract.* 8vo. vol. 281. *Lond.* 1877. 8vo.
- Trade Unionists and Drill in Schools. *Tract.* 8vo. vol. 452. *Lond.* 1885. 8vo.
- University of London Election : address to the members of convocation, and a letter from J. Stuart Mill, Esq., M.P. *Tract.* 8vo. vol. 452. *Lond.* 1867. 8vo.
- Women's position as Sanitarians. *Tract.* 8vo. vol. 452. [*Lond.*] 1887. 8vo.
- CHADWICK, *Commander F. E.* The Development of the Steamship, and the Liverpool Exhibition of 1886. *Tract.* 8vo. vol. 443. *New York,* 1887. 8vo.
- CHADWICK, *O.* Reports on Hong Kong. 1882. *See* HONG KONG.
- CHAIX, *A. ET C^{ie}.* Annuaire officiel des chemins de fer, contenant un recueil spécial de législation et de jurisprudence. *Paris,* 1866. 12mo.
- CHALLENGER, *H.M.S.* Reports of Capt. G. S. Nares (and Capt. F. T. Thomson) on Ocean Soundings and Temperature. [Hydrographic Proceedings of H.M.S. *Challenger.*] *Lond.* 1873-76. folio.
1. North and South Atlantic Oceans.
 2. Antarctic Sea, Australia and New Zealand.
 3. New Zealand to Torres Strait, Manila and Hong Kong.
 4. Pacific Ocean, China and adjacent Seas.
 - 5-6. Pacific Ocean.
 7. Atlantic Ocean.
- CHALLIS, *Rev. J.* Notes on the principles of Pure and Applied Calculation ; and applications of mathematical principles to theories of the physical forces. *Cambridge,* 1869. 8vo.

- CHALLOT, P. Tramways et chemins de fer sur routes historiques : jurisprudence, réglementation. *Paris*, 1877. 8vo.
- CHALMERS, C. Thoughts on Electricity, with notes of experiments. 3rd edition. *Edinburgh*, 1851. 8vo.
- CHALMERS, J. The Channel Railway, connecting England and France. *Lond.* 1861. 8vo.
- — 2nd edition. *Lond.* 1867. 8vo.
- Naval Armour. *Tract.* 8vo. vol. 147. *Lond.* 1865. 8vo.
- CHALMERS, J. B. Graphical determination of Forces in Engineering Structures. *Lond.* 1881. 8vo.
- CHALMERS, P. How James Chalmers saved the Penny Postage scheme : letter of the Dundee bankers and merchants to the Lords of Her Majesty's Treasury. *Lond.* 1890. 8vo.
- The Penny Postage scheme of 1837 : was it an invention or a copy? *Tract.* 8vo. vol. 332. *Lond.* 1881. 8vo.
- Opinions from the Press upon the Penny Postage scheme, *etc.* *Tract.* 8vo. vol. 332. *Wimbledon*, 1882. 8vo.
- Opinions of the Press (fresh series) upon the Letter and Parcels Post and the Adhesive Stamp. *Tract.* 8vo. vol. 363. *Wimbledon*, 1883. 8vo.
- The position of Sir Rowland Hill made plain. *Tract.* 8vo. vol. 338. *Lond.* 1882. 8vo.
- Robert Wallace, M.P., and James Chalmers, the Scottish postal reformers : letters, recent press articles, and recognitions at home and abroad. *Lond.* 1890. 8vo.
- A short review of the Adhesive Stamp. *Tract.* 8vo. vol. 354. *Lond.* 1883. 8vo.
- Submission of the Sir Rowland Hill Committee. 2nd edition, *etc.* *Tract.* 8vo. vol. 427. *Lond.* 1886. 8vo.
- CHALMERS, Dr. T. The Adaptation of External Nature to the moral . . . constitution of man. 1835. See BRIDGEWATER TREATISES, No. 1.
- CHALON, P. F. Les explosifs modernes, *etc.* *Paris*, 1886. 8vo.
- Le tirage des mines par l'électricité. *Paris*, 1888. 8vo.
- CHALONER, E., and FLEMING, —. The Mahogany Tree, *etc.* *Liverpool*, [1850.] 8vo.
- CHAM, *River*. Amended Act for the Improvement of the River Cham. *Lond.* 1813. folio.
- CHAMBERLAIN, HENRY. A new and compleat history and survey of the cities of London and Westminster, the borough of Southwark, and parts adjacent, from the earliest accounts to the beginning of the year 1770. *Lond.* [1770.] folio.
- CHAMBERLAIN, HUMPHREY. Brickmaking. *Tract.* 8vo. vol. 126. [1857?] 8vo.

- CHAMBERLIN, T. C. *The Ethical Functions of Scientific Study. An address, etc. Tract. 8vo. vol. 467. Ann Arbor, 1888. 8vo.*
- *Observations on the junction between the Eastern Sandstone and the Keweenaw Series. 1885. See IRVING, R. D., and CHAMBERLIN, T. C.*
- *See WRIGHT, G. F. The Glacial Boundary in Western Pennsylvania: with an introduction by T. C. Chamberlin. 1890.*
- CHAMBERS, A., and CHAMPION, W. H. *Description of patent Railway Breaks. Tract. 4to. vol. 42. [1858] 4to.*
- CHAMBERS, A. H. *Observations on the formation, state, and condition of Turnpike Roads, etc. Tract. 8vo. vol. 4. Lond. 1820. 8vo.*
- *Description of the new patent system of constructing new, and of repairing the old Carriage Ways. Tract. 8vo. vol. 4. Lond. 1842. 8vo.*
- CHAMBERS, C. *The Meteorology of the Bombay Presidency. (Atlas.) Lond. 1878. 4to and folio.*
- *The Normal Winds of Bombay. Tract. folio. vol. 12. Bombay, 1869. folio.*
- CHAMBERS, E. *Cyclopædia: or an universal dictionary of arts and sciences. 5th edition. (Supplement.) 4 vols. Lond. 1741–53.*
- *The Philosophical History and Memoirs of the Royal Academy of Sciences at Paris, etc. See MARTYN, J., and CHAMBERS, E.*
- CHAMBERS, G. F. *A digest of the Law of Public Health and local government. Lond. 1875. 8vo.*
- *The Law relating to Public Libraries and Museums. 2nd edition. Lond. 1879. 8vo.*
- CHAMBERS, O. *Report on Irrigation from the Taptee River. 1861. See INDIA.—TAPTEE, River.*
- CHAMBERS, Sir W. *A treatise on Civil Architecture. 2nd edition. Lond. 1768. folio.*
- *A treatise on the Decorative part of Civil Architecture: revised and edited by W. H. Leeds. Lond. 1862. 4to.*
- CHAMBERS, W. and R.
- *Chambers' Encyclopædia: a dictionary of universal knowledge. New edition. 10 vols. Lond. 1888–92. 8vo.*
- *Chambers' Etymological English Dictionary. Lond. 1884. 8vo.*
- *Chambers' Mathematical Tables. Lond. 1883. 8vo.*
- *The Isthmus of Panama. Tract. 8vo. vol. 309. Edinburgh, [] 8vo.*
- (From "Chambers' Papers for the People.")
- *Natural Philosophy. 2 vols. Edinburgh, 1854–56. 12mo.*
- CHAMBRAY, R. F. DE. *See FRÉART DE CHAMBRAY.*
- CHAMIER, G. *The utilisation of Water in South Australia. Adelaide, 1886. 8vo.*

- CHAMORRO, R. Nuevo sistema . . . para explicar el calor, la luz, la electricidad. *Tract. 8vo. vol. 196. Madrid, 1870. 8vo.*
- CHAMPION, W. H. Description of patent Railway Breaks [1858]. See CHAMBERS, A., and CHAMPION, W. H.
- CHAMPION, M. Les inondations en France depuis le 6^e siècle jusqu'à nos jours. . . avec la bibliographie de tous les ouvrages publiés sur les inondations. 6 vols. *Paris, 1858-64. 8vo.*
- CHAMPION, P. La dynamite et la nitroglycérine. *Paris, 1872. 12mo.*
- CHANCE Brothers. List of dioptric lights and accessories. 1856-85. *Birmingham, 1886. 4to.*
- Photographs of dioptric lights. [1876.] folio.
- CHANCE, H. M. La construction des coupes géologiques : traduit et annoté par Ad. Firket. *Tract. 8vo. vol. 474. Liège, 1881. 8vo.*
- CHANDELON, J. Rapport sur l'explosion de la poudrerie royale de Wetteren. *Tract. 8vo. vol. 328. Bruxelles, 1889. 8vo.*
- CHANDLER, C. F. Report on Petroleum as an Illuminator. *Tract. 8vo. vol. 287. New York, 1871. 8vo.*
- CHANEY, H. J. Equivalents of Metric and Imperial Weights and Measures. *Lond. 1882. 8vo.*
- Re-determination of the Mass of a cubic inch of Distilled Water. *Tract. 4to. vol. 116. Lond. 1892. 4to.*
(From Proc. Royal Soc.)
- Re-determination of the true Weight of a cubic inch of Distilled Water. *Tract. 8vo. vol. 493. Lond. 1890. 8vo.*
(From the Proceedings of the Royal Society.)
- CHANNEL BRIDGE AND RAILWAY COMPANY. Pont sur la Manche. Mémoire justificatif de la demande en concession déposée avec les pièces à l'appui au Ministère des Travaux Publics. 3 pt. *Paris, 1890-91. 8vo.*
- Le pont sur la Manche : exposé complet de la question, avec documents, carte et planches. *Paris, 1892. 8vo.*
- CHANNEL TUNNEL. A Bill to empower the Channel Tunnel Company, Limited, to make Railways in the County of Kent in connection with their Channel Tunnel. *Lond. 1883. folio.*
- Correspondence between the Governments of France and England respecting the proposed Channel Tunnel Railway. [*Fr. and Eng.*] *Lond. 1875. 8vo.*
- Correspondence respecting the proposed Channel Tunnel and Railway. *Lond. 1875. folio.*
- Étude des courants et de la marche des alluvions, aux abords du détroit de Douvres et du Pas de Calais, sur les côtes de France et d'Angleterre. (Lithographed.) *Paris, 1860-62. 4to.*
- Extracts from Correspondence with reference to the proposed construction of a Channel Tunnel. *Lond. 1873-82. folio.*

- CHANNEL TUNNEL—*continued*. Report of the Commissioners.
Lond. 1876. folio.
- Report of the Select Committee on the Channel Tunnel.
Lond. 1883. folio.
- CHANOINE, —. Notice sur les barrages mobiles. *Tract.* 8vo. vol. 181.
Paris, 1855. 8vo.
- CHANTRELL, G. F., THORBURN, T. C., and SHOOLBRED, J. N. Three evenings at the Liverpool Polytechnic Society, on the Sewage Question. *Tract.* 8vo. vol. 203. *Liverpool*, 1871. 8vo.
- CHANUTE, O. Address at the annual convention of the American Society of Civil Engineers. *Tract.* 8vo. vol. 522.
 (From *Trans. Am. Soc. C.E.*) *New York*, 1891. 8vo.
- Aerial Navigation : a lecture. *Tract.* 8vo. vol. 509.
New York, 1891. 8vo.
- The Paris Exposition of 1889. *Tract.* 8vo. vol. 497.
Chicago, 1890. 8vo.
 (From the Journal of the Association of Engineering Societies.)
- CHANUTE, O., and MORISON, G. The Kansas city bridge, with an account of the regimen of the Missouri river, and a description of methods used for founding in that river. 4to.
New York, 1870. 4to.
- CHANUTE, O., WALLACE, J. F., and BREITHAUP, W. H. The Sibley bridge : with discussion by W. Scherzer. *Tract.* 8vo. vol. 488.
New York, 1889. 8vo.
 (From *Trans. Am. Soc. C.E.*)
- CHAPEL, F. See SIACCI, F. Balistique extérieure . . . Suivie d'une note sur les projectiles discoïdes par F. Chapel. 1892.
- CHAPELLE, A. Traité d'hygiène publique. *Paris*, 1850. 8vo.
- CHAPLIN, W. J. Letter by the chairman of the London and South Western Railway Company, to the shareholders in that company, on the pending differences between the London and South Western and the Great Western Railway Companies. *Tract.* 8vo. vol. *Lond.* 1846. 8vo.
- CHAPMAN, E. T. Water Analysis, etc. 1874–88. See WANKLYN, J. A., and CHAPMAN, E. T.
- CHAPMAN, F. H. DE. A treatise on Shipbuilding, with explanations and demonstrations respecting the "Architectura Navalis Mercatoria." 2 vols. (Atlas.) *Cambridge*, 1820. 4to.
- CHAPMAN, H. Diagrams illustrative of the principles of Mechanical and Natural Philosophy. In three parts. *Lond.* 1842. folio.
 (Incomplete.)
- CHAPMAN, J. The Cotton and Commerce of India, considered in relation to the interests of Great Britain ; with remarks on railway communication in the Bombay Presidency.
Lond. 1851. 8vo.
- CHAPMAN, R. A treatise on Rope-making. Revised edition.
Lond. 1868. 8vo.

- CHAPMAN, S. A comparative analysis of English Railway Passenger Traffic for the five years 1883-87. *Lond.* 1889. 8vo.
- CHAPMAN, W., *Lieut.* Report on proposed Canal and Railway in Scinde. 1854. *See* INDIA.—SIND.
- CHAPMAN, WILLIAM. Address to the Commissioners of the harbour of New Shoreham. *Tract.* 8vo. vol. 38.
Newcastle, 1823. 8vo.
- Address to the subscribers to the Canal from Carlisle to Fisher's Cross. *Tract.* 8vo. vol. 47. *Newcastle*, 1823. 8vo.
- A description of the port of Seaham, in explanation of the plan of the harbour. *Tract.* 4to. vol. 34. *Newcastle*, 1830. 4to.
- Estimate of the expenses of completing the navigation of the River Barrow from St. Mullin's to Athy. *Tract.* 8vo. vol. 94.
Dublin, 1789. 8vo.
- Explanation of a plan of the Coast and Harbour of Seaham, with sailing instructions. *Tract.* 4to. vol. 34. *Newcastle*, 1831. 4to.
- Facts and remarks relative to the Witham and the Welland, *etc.* *Tract.* 8vo. vol. 12. *Boston*, 1800. 8vo.
- Reports on the Laneham Drainage. (Supplement.) 2 pt. *Tract.* 8vo. vol. 46. *Retford*, 1813. 4to.
- General principles of Public Drains: addressed to the directors of the Muston drainage. *Tract.* 8vo. vol. 46.
Newcastle, 1803. s.sh. folio.
- Letter to the subscribers of the Limerick Navigation. *Tract.* 8vo. vol. 37. *Dublin*, 1795. 8vo.
- Observations on Mr. John Sutcliffe's Report on a proposed line of canal from Stella to Hexham. *Tract.* 8vo. vol. 91.
Newcastle, 1797. 8vo.
- Observations on Shoreham Harbour. *Tract.* 8vo. vol. 38.
Newcastle, 1822. 8vo.
- Observations on the advantages of bringing the Grand Canal round by the circular road into the River Liffey. *Tract.* 8vo. vol. 37. *Dublin*, 1785. 8vo.
- Observations on the improvement of Boston Haven. 2 pt. *Tract.* 8vo. vol. 13. *Boston*, [1800?] 8vo.
- Observations on . . . forming a communication for the transit of merchandise and the produce of land to or from Newcastle and Carlisle, *etc.* *Tract.* 8vo. vol. 503. *Newcastle*, 1824. 8vo.
- Observations on the various systems of Canal Navigation, with inferences practical and mathematical, in which Mr. Fulton's plan of wheel-boats and the utility of subterraneous and of small canals are particularly investigated, including an account of the canals and inclined planes of China. *Tract.* 4to. vol. 58.
Lond. 1797. 4to.
- Reasons for not thinking a permanent overflow of one hundred yards expedient at Arram Beck. *Tract.* 8vo. vol. 46.
Hull, 1804. s.sh. 4to.

- CHAPMAN, WILLIAM—*continued*. Remarks on the proposed plan of an inland cut from Burn's Island to Leighlin. *Tract*. 8vo. vol. 37. *Carlrow*, 1791. 8vo.
- Report on Mr. Golborne's plan of draining Keyingham Level. *Tract*. 8vo. vol. 46. *Hull*, 1800. 4to.
- Report on the Beverley and Barmston Drainage. *Tract*. 8vo. vol. 46. *Beverley*, 1806. 8vo.
- Report on the Beverley and Barmston Drainage, 1804. *See* JESSOP, W., RENNIE, J., and CHAPMAN, W.
- Report on the cost and separate advantages of a Ship Canal and of a railway from Newcastle to Carlisle. 2nd edition. *Tract*. 8vo. vols. 4 and 504. *Newcastle*, 1824. 8vo.
- Report on the drainage and navigation of Keyingham Level, in Holderness. *Tract*. 8vo. vol. 46. *Newcastle-on-Tyne*, 1797. 4to.
- Report on the drainage of the marshes from Ancroft Fen to Wainfleet Haven. *Tract*. 8vo. vol. 46. *Louth*, 1810. 8vo.
- Report on the harbour of New Shoreham. *Tract*. 8vo. vol. 38. *Brighton*, 1815. 8vo.
- Report on the Improvement of the Harbour of Arklow and the practicability of a navigation from thence. *Tract*. 8vo. vol. 37. *Dublin*, 1792. 8vo.
- Report on the Manchester and Dee Ship Canal. *Tract*. 4to. vol. 7. *Manchester*, 1825. 4to.
- Report on the means of draining the low grounds in the vales of the Derwent and Hertford, *etc.* *Tract*. 8vo. vol. 54. *Newcastle*, 1800. 8vo.
- Report on the means of making Woodford River navigable, from Lough Erne to Woodford Lough. *Tract*. 8vo. vol. 37. *Limerick*, 1793. 8vo.
- Report on the means of obtaining a safe and commodious communication from Carlisle to the sea. *Tract*. 8vo. vol. 47. *Carlisle*, 1807. 8vo.
- Report on the means of perfecting the Navigation of the River Barrow from St. Mullins to Athy. *Tract*. 8vo. vol. 37. *Dublin*, 1789. 8vo.
- Report on the measures to be attended to in the survey of a line of navigation from Newcastle-upon-Tyne to the Irish Channel. *Tract*. 8vo. vol. 64. *Newcastle-upon-Tyne*, 1795. 8vo.
- [Another edition.] To which are added all the reports subsequent the survey, and the estimates of Messrs. Jessop and Chapman. *Tract*. 8vo. vol. 6. *Newcastle-upon-Tyne*, 1796. 8vo.
- Report on the navigation of the River Shannon from Lough Allen to Killaloe, with estimates. *Tract*. 8vo. vol. 37. *Limerick*, 1791. 8vo.
- Report on the projected patent wrought iron Suspension Bridge across the River Tyne at North and South Shields. *Tract*. 4to. vol. 13. *Newcastle-upon-Tyne*, 1825. 4to.

- CHAPMAN, WILLIAM—*continued*. Report on the proposed Branch Navigations from the River Hull, with estimates. *Tract*. 8vo. vol. 46. *Newcastle*, 1800. 8vo.
- Report on the proposed Canal from Castle Orchards, Sheffield, to the River Dun below Tinsley. *Tract*. 4to. vol. 34. *Sheffield*, 1814. 4to.
- Report on the proposed Canal Navigation between Carlisle and Solway Firth. 2nd edition. *Tract*. 8vo. vol. 6. *Carlisle*, 1818. 8vo.
- Report on the proposed line of Navigation between Newcastle and Maryport, *etc.*, 1795. See JESSOP, W., and CHAPMAN, W.
- Report on the proposed Navigation between the east and west seas, as far as extends from Newcastle to Haydon Bridge, *etc.* 3 parts. *Tract*. 8vo. vol. 6. *Newcastle*, 1795. 8vo.
- Report on the proposed Navigation to Knaresbro'. *Tract*. 8vo. vol. 6. *York*, 1802. 8vo.
- Report on the rise . . . and projected extension of the Harbour of Seaham. *Tract*. 8vo. vol. 13. *Newcastle*, 1832. 8vo.
- Report on the state of the Beverley and Barmston Drainage. *Tract*. 8vo. vol. 46. *Scarborough*, 1804. 8vo.
- Report on the state of the Beverley and Barmston Drainage. *Tract*. 8vo. vol. 46. *Newcastle*, 1809. 8vo.
- Report on various projected Lines of Navigation from Sheffield. *Tract*. 4to. vol. 7. *Sheffield*, 1813. 4to.
- Report respecting the Drainage of the low grounds lying below the Wolds, on the west side of the River Hull, and in Frodingham Carrs, *etc.* *Tract*. 8vo. vol. 46. *Hull*, 1796. 8vo.
- Report to the chairman and commissioners of Shoreham Harbour. *Tract*. 8vo. vol. 38. *Lond.* 1821. 8vo.
- Report to the committee of the proprietors of the Beverley and Barmston Drainage. *Tract*. 8vo. vol. 46. *Hull*, 1801. 8vo.
- Reports on the Beverley and Barmston Drainage. *Tract*. 8vo. vol. 54. *Newcastle*, 1803. 8vo.
- Reports on the state of the Beverley and Barmston Drainage, dated April 27th and May 18th, 1803. *Tract*. 8vo. vol. 46. *Newcastle*, 1803. 8vo.
- [Scarborough Harbour. A collection of Reports.] 32 pt. *Tract*. folio. vol. 3. 1800–30. folio.
- Sundry papers and reports relative, first, to the defence of the estate of Cherry Cobb Sands, against the Humber; secondly, the draining of Keyingham Marshes; and thirdly, the eventual improvement and accretion of the fore shore opposite Foul Holme Sands. *Tract*. 8vo. vol. 46. *Newcastle*, 1800, and *Lond.* 1801. 8vo.
- Treatise on the manufacture of Cordage. 1808. 4to.
- CHAPPELL, E., *Capt.* Reports relative to Smith's patent screw-propeller. *Tract*. 8vo. vol. 55. *Lond.* 1840. 8vo.

- CHAPTAL, J. A. C. Chemistry applied to arts and manufactures.
4 vols. *Lond.* 1807. 8vo.
- CHARGUÉRAUD, A. The Port of Calais and its appliances. [2nd
Int. Mar. Congr.] *[Lond.* 1893.] 8vo.
- CHARITABLE CORPORATION. Charitable corporation, for relief
of industrious poor. *Lond.* 1832, 33. folio.
- CHARLEROI CANAL. Rapport. *Bruxelles*, 1839. folio.
- CHARLESTON, S.C. Centennial celebration of the Incorporation
of the city of Charleston, South Carolina . . . 1883.
Charleston, 1884. 8vo.
- Examination by Government officers, of buildings injured by the
earthquake at Charleston, 1886. *Tract.* 8vo. vol. 450.
Wilmington, 1887. 8vo.
- Souvenir of the great earthquake at Charleston, S.C., August
31st, 1886. Photographs by G. L. Cook. *Tract.* 8vo. vol. 450.
Charleston, 1886. 8vo.
- CHARLETON, A. G. The choice of Coarse and Fine-crushing
Machinery and processes of Ore Treatment. 6 pt. in 1 vol.
Lond. 1892–94. 8vo.
(From Trans. Fed. Inst. Mining Engrs.)
- Tin: describing the chief methods of mining, dressing, and
smelting it abroad, with notes upon Arsenic, Bismuth, and
Wolfram. *Lond.* 1884. 8vo.
- CHARLEVILLE, RAUCOURT DE. *See* RAUCOURT DE CHARLEVILLE.
- CHARLEY, W. Flax and its products in Ireland.
Lond. 1862. 8vo.
- CHARNOCK, G. F. Exercises in Graphic Statics, with examples.
Part I. Roof trusses, etc. *Huddersfield* [1888 ?] obl. 8vo.
- CHARNOCK, J. A history of Marine Architecture, etc. 3 vols.
Lond. 1800–02. 4to.
- CHARPIGNON, J. Physiologie, médecine, et métaphysique du
magnétisme. *Paris*, 1848. 8vo.
- CHARTERED ACCOUNTANTS, *Institute of.* *See* INSTITUTE OF
CHARTERED ACCOUNTANTS.
- CHARTERS TOWERS. Charters Towers Water Supply.
[Brisbane, 1887.] folio.
- CHARTON, E. Dictionnaire des professions ou guide pour le choix
d'un état. 3^e édition. *Paris*, 1880. 8vo.
- CHARTON, J. Aperçu général des dispositions et installations de
l'Exposition Universelle de 1889. *Tract.* 8vo. vol. 476.
Paris, 1889. 8vo.
- CHASE, J. A practical treatise on Landscape Painting and sketching
from Nature in water-colours. Edited by Rev. J. Harris. *Tract.*
8vo. vol. 385. *Lond.* [1863.] 8vo.
- CHASLES, M. Mémoire sur les surfaces engendrées par une ligne
droite, particulièrement sur l'hyperboloïde, le paraboloïde, et le
cône du second degré. *Tract.* 8vo. vol. 189. [1840 ?] 8vo.

- CHARLES, M.—*continued*. Propriétés des surfaces du second degré analogues aux théorèmes de Pascal et de M. Brianchon. *Tract. 8vo. vol. 189.* [1839 ?] 8vo.
- CHASSELOUP DE LAUBAT, F. DE, *Marquis*. Description of Chasseloup de Laubat's system of Fortification executed at Alexandria. [By J. S. Macaulay.] *Tract. 8vo. vol. 335.* *Lond. 1833.* 8vo.
- CHATARD, T. M. Report of work done in the Washington Laboratory, 1883–84. *See* CLARKE, F. W., and CHATARD, T. M.
- CHÂTEAU, T. Technologie du bâtiment; ou, étude complète des matériaux de toute espèce employés dans l'art de bâtir, *etc.* 2 vols. *Paris, 1863–66.* 8vo.
- CHATEAUNEUF, A. DE. Architectura domestica. [In German and English.] *Hamburg, 1839.* 4to.
- CHATELIER, H. LE. *See* LE CHATELIER, H.
- CHATFIELD, H. An elementary essay on the principle of Mastng Ships: with graphic illustrations . . . of a proposed new method of proportioning masts, yards, sails, *etc.* *Tract. 4to. vol. 64.* *Devonport, 1834.* 4to.
- CHATHAM. Chatham Dockyard extension: correspondence relating to contracts. *Lond. 1870.* folio.
- Plan of H.M. Dockyard, Marine Barracks, and Naval Hospital. *Lond. 1858.* 8vo.
- [Another edition, corrected.] *Lond. 1879.* 8vo.
- Report on progress of Works. *Lond. 1871.* folio.
- Proposals of Prices for performing by contract several Works in the additional buildings proposed to be made to the Marine Barracks, Chatham. *Tract. folio. vol. 49.* [*Lond. 1800 ?*] folio.
- Proposals of Prices for . . . the erection and completion of a Building . . . designed for a Chapel, and to be erected in H.M. Dockyard at Chatham. *Tract. folio. vol. 49.* [*Lond. 1800 ?*] folio.
- CHATIGNIER, L. Commentaire des clauses et conditions générales imposées aux entrepreneurs pour l'exécution des travaux des ponts et chaussées. *Tract. 8vo. vol. 419.* *Paris, 1857.* 8vo.
- CHATTAWAY, E. D. Railways: their capital and dividends, with statistics of their working in Great Britain and Ireland. *Lond. 1855–56.* 8vo.
- CHATTERTON, A. The prevention and extinction of Fires in Flour Mills. *Tract. 8vo. vol. 465.* *Lond. 1888.* 8vo.
- Proposals for utilizing Water Power in Southern India. *Tract. 8vo. vol. 505.* *Madras, 1892.* 8vo.
- CHATTERTON, B. The "Chatterton" [Gas] Engine. *Tract. 8vo. vol. 512.* *Lond. 1892.* 8vo.
- CHATWOOD, S. "The Battle of the Safes." Herring, New York v. Chatwood, Bolton. *Tract. 8vo. vol. 449.* [1886.] 8vo.

- CHAUBART, L. Amélioration des cours d'eau dits navigables par l'emploi du résillage métallique. *Tract. 8vo. vol. 322.*
Moissac, 1881. 8vo.
- Enrochements défensifs des ouvrages d'art en lits de rivière et de mer et digues proprement dites. *Tract. 8vo. vol. 261.*
Toulouse, 1870. 8vo.
- CHAUDIERE BRIDGE. General Specification and form of tender for the iron superstructure of the Chaudiere Bridge [over the Ottawa River]. *Tract. folio. vol. 25. Montreal, 1880. folio.*
- CHAUMONT, DE. *See FRANÇOIS-DE-CHAUMONT.*
- CHAUVEAU, G. Traité théorique et pratique des moteurs à gaz, etc. *Paris, 1891. 8vo.*
- CHEESEWRIGHT, F. H. Harbours, natural and artificial. *Tract. 8vo. vol. 524. Lond. 1891. 8vo.*
 (From the "Journal of the Society of Arts.")
- CHEFFINS, C. E. North Staffordshire Railway. A collection of working drawings of the rolling stock. [] folio.
- CHEFFINS, C. F. Map of the Railway from Birmingham to Rugby, and from Birmingham to Wolverhampton. *Lond. 1837. 12mo.*
- Map of the London and Birmingham Railway from London to Boxmoor. *Lond. 1837. 12mo.*
- Map of Railways in England and Scotland, and of the main Roads throughout the kingdom. *Lond. 1844. 8vo.*
- Maps and sections of the grand Railway Communication from London to the North. *Lond. [1840?] 8vo.*
- CHELMER. Act for Chelmer and Blackwater Navigation. *Lond. 1793. folio.*
- CHELSEA. [Vestry Surveyor's] report on overhead Wires and Cables, underground pipes, wires, cables, etc. By T. W. E. Higgins. *Tract. 8vo. vol. Chelsea, 1891. 8vo.*
- CHELSEA BRIDGE. Return of all engineers' reports during the last three years respecting the strength of Chelsea Bridge. *Lond. 1860–62. folio.*
- CHELSEA EMBANKMENT. Chelsea Embankment and northern low level Sewer from Chelsea Hospital to Battersea Bridge. Specification of works. (Atlas of plates.) [Met. Board of Works.] *Lond. 1871. folio.*
- Chelsea Embankment. Descriptive Statement, etc. (Met. Board of Works.) *Tract. 8vo. vol. 478.*
- *See also THAMES EMBANKMENT. Lond. 1871. 8vo.*
- CHELSEA WATERWORKS. An Act for extending the Chelsea Waterworks: and for better supplying the City of Westminster . . . with Water. *Lond. 1852. folio.*
- *See LONDON.—[Water Supply]. Minutes of Evidence on the Water Supply of the Metropolis and the Chelsea Waterworks Bill, 1852.*

CHELTENHAM. Act for improving Cheltenham.*Lond.* 1852. folio.

— Report from the Surveying Officers, and minutes of evidence on the Cheltenham Waterworks Bill. *Lond.* 1847. folio.

— Minutes of Evidence taken before the Select Committee of the House of Commons on the Cheltenham Water Bill. (Group C.)

Lond. 1878. folio.

CHELTENHAM AND GREAT WESTERN UNION RAILWAY COMPANY. An Address from the Directors to the Shareholders. *Tract.* 8vo. vol. 416. *Cirencester*, 1836.

CHELTENHAM AND OXFORD RAILWAY. A Voice from Cheltenham, addressed to all whom it may concern and in particular to the Shareholders in the Cheltenham and Oxford, and London and Birmingham Union Railway Company. *Tract.* 8vo. vol. 416. *Lond.* 1836. 8vo.

CHEMICAL SOCIETY. Catalogue of the Library. *Tract.* 8vo. vol. 381. *Lond.* 1869. 8vo.

— — [Another edition.] *Lond.* 1886. 8vo.

— Quarterly Journal, etc. *Lond.* 1849, etc. 8vo.

(Title altered in 1862 to Journal of the Chemical Society.)

CHEMIN, O., and VERDIER, F. La houille et ses dérivés.

Paris, 1888. 8vo.

CHEMIN DE FER DE LA LOIRE. Procès verbaux des assemblées générales des 26 mars et 9 avril 1843 et 31 mars 1844, et rapports, etc. *Tract.* 8vo. vol. 81. *Paris*, 1844. 8vo.

CHEMIN DE FER D'ORLÉANS. Réseau central, ligne d'Arnant au Lot. Compte-rendu statistique provisoire de la construction de la section de Murat à Vic-sur-Cère. *Tract.* 4to. vol. 110.

Paris, 1868. 4to.

CHEMIN DE FER DE PARIS À LYON ET À LA MÉDITERRANÉE. Dimensions principales des locomotives et tenders. 2 vols. *Paris*, 1869–71. 4to.

— Ligne du Rhône au Mont-Cenis, section de St. Michel au Mont-Cenis. Plan et profil en long. 1871. folio.

CHEMIN DE FER DU NORD. Notice descriptive des appareils électriques exposés par la compagnie à l'Exposition Internationale d'Électricité, 1881. *Tract.* folio. vol. 29. *Lille*, 1881. folio.

CHEMNITZ.—*Königliche Höhere Gewerbechule, Baugewerkschule und Werkmeisterschule.* Programm zu der am 10, 11, und 12 April, 1867, zu haltenden Prüfung der Schüler. *Chemnitz*, 1867. 4to.

— *Technische Staatslehranstalten.* Programm . . . Ostern, 1886, etc.

Chemnitz, 1886, etc. 4to.

CHERBOURG.—*Société des Sciences Naturelles.* Catalogue de la Bibliothèque, etc. [*Cherbourg*.] 1852. 8vo.

— — [Another edition.] [*Cherbourg*.] 1870. 8vo.

— Mémoires. Vol. 1 (2, etc.). *Cherbourg*, 1852, etc. 8vo.

- CHERNOFF, D. On the structure of Cast Steel Ingots. *Tract.* 8vo. vol. 324. [Lond. 1878.] 8vo.
(From the Proc. Inst. Mechanical Engineers.)
- Remarks on the manufacture of Steel, and the mode of working it. *Tract.* 8vo. vol. 273. Lond. 1876. 8vo.
- CHESAPEAKE AND DELAWARE CANAL COMPANY. Sixth general Report. *Tract.* 8vo. vol. 11. [Philadelphia,] 1825. 8vo.
- CHESAPEAKE AND OHIO CANAL. Report by Col. J. J. Abert. *Tract.* 4to. vol. 74. Washington, 1874. 4to.
- CHESAPEAKE AND OHIO RAILWAY. The Chesapeake and Ohio Line, late the Virginia Central Line. *Tract.* 8vo. vol. 435. Lond. 1868. 8vo.
- CHESBROUGH, E. S. Chicago Sewerage. Report of the results of examinations made in relation to sewerage in several European cities. *Tract.* 8vo. vol. 106. Chicago, 1858. 8vo.
- CHESHIRE. An Act for conferring further powers upon the Cheshire Lines Committee, etc. Lond. 1883. folio.
- Cheshire Lines Act, 1890. Lond. 1890. folio.
- CHESHIRE, E. The results of the Census of Great Britain in 1851, with a description of the . . . processes, etc. (Appendix.) *Tract.* 8vo. vol. 116. Lond. 1853. 8vo.
- CHESNEY, C. C., Col. Essays in modern Military Biography. Lond. 1874. 8vo.
- CHESNEY, F. R., Lt.-Col. The Expedition for the Survey of the Rivers Euphrates and Tigris 1835 and 1837. Vols. 1, 2, and 5 (vols. 3 and 4 not published). Lond. 1850. 4to.
- [Another edition.] Vols. 1 and 2. Lond. 1850. 8vo.
- CHESNEY, G., Col., and CORRON, Sir A. Papers on land and water carriage in India. *Tract.* 8vo. vol. 225. Madras, 1871. 8vo.
- CHESSON, F. W. On Manitoba. *Tract.* 8vo. vol. 233. Lond. 1872. 8vo.
- CHESTER, F. D. The Gabbros and Associated Rocks in Delaware. [U.S. Geol. Survey. Bulletin No. 59.] Washington, 1890. 8vo.
- CHESTER. Guide to Chester. Chester meeting of the Iron and Steel Institute, 1884. Visits and excursions. *Tract.* 4to. vol. . Lond. 1884. 4to.
- Reports on the best means of promoting the improvement of the port and harbour of Chester; and of Robert Stevenson and Sons relative to the improvement of the navigation of the River Dee. *Tract.* 8vo. vol. 286. Chester, 1839. 8vo.
- CHESTER AND BIRKENHEAD RAILWAY. Minutes of evidence taken before the Lords' Committee. Lond. 1837. folio.
- CHESTER AND HOLYHEAD RAILWAY. Memorial of the promoters. 1840. folio.
- Mr. Rendel's Report. Lond. 1844. folio.

- CHESTER AND HOLYHEAD RAILWAY**—*continued*. Copy of Report to the Commissioners of Railways on the fatal accident on the 24th May, 1847, by the falling of the Bridge over the River Dee. *Lond.* 1847. folio.
- CHESTER CANAL**. An Act for making a navigable Cut or Canal from the River Dee within the Liberties of the City of Chester to Middlewich and Nantwich. *Lond.* 1777. folio.
- An Act for . . . enlarging the powers of [the Chester Canal Act of 1777]. *Lond.* 1777. folio.
- CHESTERFIELD**. Chesterfield Borough Extension and Improvement Bill. Minutes of evidence taken before the Select Committee on private bills. *Tract. 8vo. vol. 267. Lond.* 1876. 8vo.
- CHESTERFIELD AND MIDLAND COUNTIES INSTITUTION OF ENGINEERS**. [Formerly the **CHESTERFIELD AND DERBYSHIRE INSTITUTE OF MINING, CIVIL AND MECHANICAL ENGINEERS**.] Transactions. vol. 1 (2, etc.) *Lond.* 1873, etc. 8vo.
- CHETHAM, W.** An Act for rendering valid certain Letters Patent granted to William Chetham for "Improvements in self-acting temples for Looms." *Lond.* 1883. folio.
- CHEVALIER, A.** *Traité élémentaire des réactifs*. 1822. *See* **PAYEN, A., and CHEVALIER, A.**
- CHEVALIER, M.** *L'isthme de Panama : examen historique et géographique des différentes directions suivant lesquelles on pourrait le percer, . . . suivi d'un aperçu sur l'isthme de Suez*. *Tract. 8vo. vol. 96. Paris,* 1844. 8vo.
- *Des intérêts matériels en France. Travaux publics. Routes : canaux : chemins de fer.* *Paris et Bruxelles,* 1838. 8vo.
- *Histoire et description des voies de communication aux États-Unis et des travaux d'art qui en dépendent.* (Atlas of plates.) 3 vols. *Paris,* 1840–41. 4to. and folio.
- CHEVERAU, L'Abbé.** *Discours prononcé à la réunion générale de la Société française pour la conservation des monuments.* *Tract. 4to. vol. 57. Caen,* 1837. 8vo.
- CHEVREUL, E.** *See* **EBELMEN, J. J.** *Recueil des travaux scientifiques de M. Ebelmen . . . Précédé d'une notice sur M. Ebelmen par M. E. Chevreul.* 1855.
- CHEYNE, A., Capt.** Answers for Capt. Cheyne, to the report, purporting to be made by the aggregate committee of the Edinburgh and Glasgow Union Canal Company, appointed . . . to inquire into the affairs of the company. With Appendices containing declarations and correspondence. *Tract. 8vo. vol. 7. Edinburgh,* 1829. 8vo.
- CHEYNE, C.** Narrative report of construction of Holkar State Railway. *Tract. folio. vol. 31. Neemuch,* 1878. folio.
- CHIANA, River.** Profilo di livellazione della Chiana e dell' Arno dall' argine di separazione presso Chiusi sino al mare, e della Sieve da San Piero a Sieve sino al suo sbocco in Arno, rilevato colla direzione di A. Manetti, Direttore generale delle acque e strade, dall' ing. F. Renard. 1848. folio.

CHICAGO. The Climate of Chicago: by H. A. Hazen.

Washington, D.C., 1893.

- Specifications for the construction of a Tunnel eight feet in diameter, from a point on the Lake Park, to be built in an easterly direction under the bed of Lake Michigan, to a distance of about four miles. *Tract. folio. vol. 41.* Chicago, 1887. folio.
 - [*Commission on Drainage and Water Supply.*] Preliminary Report, etc. Chicago, 1887. 8vo.
 - [*Exhibition of 1893.*] Catalogue of Articles in the Exhibit of the Lehigh University, at the World's Columbian Exposition, 1893. *Tract. 8vo. vol.* South Bethlehem, Pa., 1893. 8vo.
 - Descriptive Catalogue of the Albums, Memoirs and Designs exhibited by the Society of Portuguese Civil Engineers. Lisbon, 1893. 8vo.
 - Notices sur les appareils d'éclairage . . . exposés dans le Palais de l'Electricité par le Service des Phares. Paris, 1893. 8vo.
 - Notice on Apparatus for Illumination . . . exhibited in the Palace of Electricity by the Lighthouse Service [of the French Republic]. Paris, 1893. 8vo.
 - [Papers presented by the American Society of Civil Engineers for the International Engineering Congress will be found in the Transactions for 1893.]
 - Proceedings of the General Committee of Engineering Societies, etc. [Chicago,] 1891. 8vo.
 - Royal Commission for the Chicago Exhibition. Handbook of Regulations and general Information. April, 1892. Lond. 1892. 8vo.
 - — 3rd edition, August, 1892. Lond. 1892. 8vo.
 - — Final edition, May, 1893. Lond. 1893. 8vo.
 - Royal Commission for the Chicago Exhibition. Official Catalogue of the British Section. Lond. 1893. 8vo.
 - — 2nd edition. Lond. 1893. 8vo.
 - [*Public Works.*] Annual Report of the Board of Public Works, 1869-75. 7 vols. Chicago, 1869-76. 8vo.
 - Annual Report of the Department of Public Works, 1876-88. 13 vols. Chicago, 1877-89. 8vo.
 - [*Railways.*] Terminal Commission. Report to the Mayor and Common Council of Chicago . . . Briefs . . . as to . . . the duty to the public, of Railroad Corporations whose lines cross the surface of streets in Chicago, and the remedy for its enforcement. Chicago, 1892. 8vo.
 - [*Rush Street Bridge.*] Brief memorandum of its construction, etc. *Tract. 4to. vol. 93.* Chicago, 1884. 4to.
- CHICAGO, MILWAUKEE AND ST. PAUL RAILWAY. Instructions for employés in the Bridge and Building Department, etc. Chicago, 1893. 8vo.

- CHICAGO, MILWAUKEE AND ST. PAUL RAILWAY—*continued*. General specifications for wrought iron and steel structures. July 1st, 1888. *Tract. folio. vol. 42.* 1888. folio.
- Howe Truss Bridge. *Chicago*, 1891. folio.
- CHICCHI, P. Corso teorico-practica sulla costruzione dei ponti metallici. (2 Atlases of plates.) 2^a edizione. 3 vols. in 2. *Torino*, 1886. 8vo., 4to. and folio.
- [Appendix to the above.] *Padova*, 1882. folio.
- CHICKERING, J. W. Catalogue of phcenogamous and vascular cryptogamous plants collected by Dr. Elliott Coues in Dakota and Montana. *Tract. 8vo. vol. 474.* *Washington*, 1878. 8vo.
- CHIESA, A., and GAMBARDINI, B. Delle cagioni e de' rimedi delle inondazioni del Tevere. *Roma*, 1746. 8vo.
- CHIGNECTO. Information respecting the proposed Marine Transport Railway across the Isthmus of Chignecto. *Tract. 8vo. vol. 340.* *Ottawa*, 1882. 8vo.
- CHILCOTT, J. New guide to Bristol, Clifton, and the Hotwells, *etc.* *Bristol*, 1826. 8vo.
- CHILD, G. W. Reports upon the Sanitary Condition of Oxfordshire. 2 vols. *Lond.* 1874–77. 8vo.
- The present state of the Town Sewage Question. *Tract. 8vo. vol. 520.* *Oxford and Lond.* 1865. 8vo.
- CHILDE, J., MCALPINE, W. J., and KIRKWOOD, J. P. Report on the improvement of the harbour of Montreal, and on the trade and navigation of the St. Lawrence. *Tract. 4to. vol. 66.* 1857. 4to.
- CHILDREN, J. G. On the use of a mixture of Spirit of wine and Camphine, as a light for optical purposes. *Tract. 8vo. vol. 96.* [1847.] 8vo.
- CHILDS, G. W. The Public Ledger Building, Philadelphia. *Philadelphia*, 1868. 8vo.
- CHILDS, O. W. Engineer's report of the cost of constructing the Ship Canal of Nicaragua, as estimated at New York prices. *Tract. 8vo. vol. 112.* *New York*, 1852. 8vo.
- Map and profile of the route for the construction of a Ship Canal . . . across the isthmus of Nicaragua, Central America. *New York*, 1852. 8vo.
- Report of the survey and estimates of the cost of constructing the inter-oceanic Ship Canal . . . in the state of Nicaragua, Central America. *Tract. 8vo. vol. 112.* *New York*, 1852. 8vo.
- CHILL.—[*Industry and Public Works.*] Anuario del Ministerio . . . 1888–90. *Santiago*, 1889–91. 8vo.
- Boletin. *Santiago*, 1887–90. 8vo.
- Memoria del Ministerio . . . 1888–89. *Santiago*, 1888–89. 8vo.
- [*Railways.*] Estadística de los ferro-carriles del Estado, 1888. *Valparaiso*, 1889. folio.

- CHILI.—[*Railways*].—*continued*. Informe i documentos relativos al Ferrocarril Trasandino . . . por D. Domingo de Toro i Herrera. *Santiago*, 1892. 8vo.
- Memoria presentada por el Director Jeneral de los Ferrocarriles del Estado. 1888. *Valparaiso*, 1889. 8vo.
- CHILWORTH. Report on an Explosion at Chilworth, near Guildford: by Maj. V. D. Majendie. *Lond.* 1879. folio.
- Report on an Explosion at Chilworth Gunpowder Factory. *Lond.* 1884. folio.
- CHINA. A Complete View of the Chinese Empire; exhibited in a geographical description of that country, a dissertation on its antiquity, and a genuine . . . account of Earl Macartney's embassy, *etc.* *Lond.* 1798. 8vo.
- [*Customs.*] Customs Gazette. No. 43–60. *Shanghai*, 1879–84. 4to.
- Returns of Trade at the Treaty Ports, 1878 (1882–83). 3 vols. *Shanghai*, 1879–84. 4to.
- [*Lighthouses, etc.*] Return relating to Lighthouses, Light-vessels, Buoys and Beacons, 1872 (1874–77, 1879, *etc.*). *Shanghai*, 1872, *etc.* 4to.
- CHIOLICH-LÖWENSBERG, H. von. Anleitung zum Wasserbau. 3 pt. *Stuttgart*, 1864–65. 4to.
- CHISHOLM, G. G. Europe. 1885. See RUDLER, F. W., and CHISHOLM, G. G.
- CHISHOLM, H. W. On Balances. [Science Lectures at South Kensington, vol. 2.] *Lond.* 1879. 8vo.
- On the Science of Weighing and Measuring, *etc.* *Lond.* 1877. 8vo.
- CHLADNI, E. F. F. Traité d'acoustique. *Paris*. 1809. 8vo.
- CHONTALES GOLD AND SILVER MINING COMPANY. Report of the directors. *Tract.* 8vo. vol. 440. *Lond.* 1866. 8vo.
- CHORLEY. An Act for the better supplying with Water the Town of Chorley, *etc.* *Lond.* 1846. folio.
- An Act to authorize the Waterworks Company to raise a further sum of money (1851). *Lond.* 1852. folio.
- CHOWNE, W. D. Experimental researches on the Movement of atmospheric Air in Tubes. *Tract.* 8vo. vol. 103. [*Lond.* 1855.] 8vo.
- (From the Proceedings of the Royal Society.)
- CHRÉTIEN, J. Chemin de fer électrique des boulevards de Paris. *Tract.* 4to. vol. 85. *Paris*, 1881. 4to.
- CHRISTCHURCH, N.Z. Correspondence relating to the erection of Government Buildings in Christchurch. *Christchurch*, 1875. folio.
- CHRISTIAN, G. J. Traité de mécanique industrielle, ou exposé de la science de la mécanique, *etc.* (Atlas.) 4 vols. *Paris*, 1822–25. 4to.


- CHRISTIE, J. H., *Capt.* Report on the Anchorage of the proposed Harbour of refuge at Holyhead. *Tract. folio.*
Liverpool, 1847. folio.
- CHRISTIE, S. H. On Magnetic Influence in the Solar Rays. *Tract. 4to. vol. 15.* (From the Philosophical Transactions.) *Lond. 1826. 4to.*
- CHRISTIE, W. B. European Hospital, Darjeeling. With drawings. *Tract. folio. vol. 41.* [1885.] *folio.*
- CHRISTIE, W. H. M. Universal Time. *Tract. 8vo. vol. 422.*
Lond. 1886. 8vo.
- Astronomical . . . Observations made at the Royal Observatory, Greenwich. *See GREENWICH OBSERVATORY.*
- CHRISTOPHER, J. C. Notes of a visit to Northwoods, Gloucestershire. *Tract. 8vo. vol. 88.* *Lond. 1848. 8vo.*
- CHRISTY, F. C. Improvement of the Water Communication between Melbourne and Hobson's Bay. *Tract. 8vo. vol. 305.*
Melbourne, 1879. 8vo.
- CHRISTY, S. B., *Prof.* On the losses in roasting Gold Ores, and the volatility of gold. [New York, 1889.] *8vo.*
 (From the Trans. Am. Inst. of Mining Engineers.)
- Quicksilver-condensation at New Almaden, California. *Tract. 8vo. vol. 415.* *Philadelphia, 1885. 8vo.*
- CHRISTY, T., and VETILLART, M. M. New commercial Plants and Drugs. Part 1. Fibres: their botanical sources, etc. Part 2. New plants and drugs: their cultivation and uses. *Tract. 8vo. vol. 336.* *Lond. 1882. 8vo.*
- CHRISTY, W. J. A practical treatise on the Joints made and used by Builders. *Lond. 1882. 8vo.*
- CHROCKATT DE SA, J. Brazilian Railways: their history, legislation and development. *Rio de Janeiro, 1893. 8vo.*
- CHROCKATT DE SA, J., and THOMPSON, E. A. G. Mappa do Estado. Minas Geraes. [Republica dos Estados Unidos do Brazil.] *Rio do Janeiro, [1893.] 4to.*
- CHUBB, J. On the construction of Locks and Keys. *Tract. 8vo. vol. 502.* (From Min. Proc. Inst. C.E.) *Lond. [1850.] 8vo.*
- CHURCH, Dr. Drawing of Dr. Church's London and Birmingham coach, built at Birmingham, 1833. *Tract. 4to. vol. 73.* [1835?] *4to.*
- CHURCH, *Prof.* A. H. Cantor Lectures on some points of contact between the scientific and artistic aspects of Pottery and Porcelain. *Lond. 1881. 8vo.*
- The Laboratory Guide for Agricultural Students. *Lond. 1882. 8vo.*
- CHURCH, G. E. The route to Bolivia *via* the River Amazon. *Tract. 8vo. vol. 322.* *Lond. 1877. 8vo.*
- CHURCH, J. Inaugural address as President of the Society of Engineers, 5th February, 1883. *Tract. 8vo. vol. 467.* *Lond. 1883. 8vo.*

- CHURCH, J. A. The Comstock Lode: its formation and history. *New York*, 1879. 4to.
- CHURCH, J. P. Mechanics of Engineering. *New York*, 1888. 8vo.
- CHURCH, W. C. The life of John Ericsson. 2 vols. *Lond.* 1890. 8vo.
- CHURTON, E. The Railroad Book of England. *Lond.* 1851. 8vo.
- CIALDI, A. Avviso ai naviganti ed agl' idraulici sul Portosàido, etc. *Tract.* 8vo. vol. 218. *Roma*, 1872. 8vo.
- Cenni sul moto ondoso del mare e sulle correnti di esso. *Tract.* 4to. vol. 50. *Roma*, 1856. 4to.
- Considerazione teorico-pratiche intorno ai movimenti ed agli effetti del vento e del mare specialmente presso il porto di Genova. *Tract.* 4to. vol. 78. *Roma*, 1876. 4to.
- Dei movimenti del mare. *Roma*, 1876. 8vo.
- Delle barche a vapore e di alquante proposizioni per rendere più sicura e più agevole la navigazione del Tevere e della sua foce in Fiumicino. *Roma*, 1845. 8vo.
- Le dighe de Portosàido ed il loro insabbiamento sino al giorno della solenne apertura del bosforo di Suez. *Tract.* 8vo. vol. 173. *Roma*, 1869. 8vo.
- Les jetées de Port Saïd et leur ensablement. *Tract.* 4to. vol. 61. *Rome*, 1869. 4to.
- Continuazione della storia degli insabbiamenti in Portosàido, etc. (*Suez Canal Tracts*, Vol. I.) *Milano*, 1870. 8vo.
- Effetti del moto ondoso allegati nella geografia fisica del mare e sua meteorologia, scritta dal Maury . . . Lettera al direttore della "Revista Marittima." *Tract.* 8vo. vol. 218. *Roma*, 1872. 8vo.
- Il porto di Genova e il voto del Consiglio superiore dei lavori pubblici innanzi alla scienza ed all' arte. *Tract.* 4to. vol. 78. *Roma*, 1876. 4to.
- — [Another edition.] *Milano*, 1878. 8vo.
- Impressioni intorno . . . al porto di Genova. *Tract.* 4to. vol. 78. *Roma*, 1876. 4to.
- L'ingegno di Ferdinando de Luca. *Tract.* 8vo. vol. 196. *Roma*, 1870. 8vo.
- Le phénomène du flot courant à propos du naufrage de la frégate russe Alexandre-Newski. *Tract.* 8vo. vol. 177. *Rome*, 1869. 8vo.
- Les ports-chaenax et Port-Saïd. (*Suez Canal Tracts*, Vol. I.) *Rome*, 1870. 8vo.
- Note sur les moles à piles et acceaux dans les ports à bassin, et sur l'usage qu'en ont fait les Romains, etc. *Tract.* 8vo. vol. 324. *St. Germain*, 1879. 8vo.

- CIALDI, A.—*continued*. Notice sur les travaux de M. le comm. A. Cialdi. *Tract.* 4to. vol. 80. [1877.] 4to.
- Nozioni preliminari per un trattato sulla costruzione dei porti nel Mediterraneo. *Tract.* 8vo. vol. 241. Roma, 1874. 8vo.
(From the "Giornale dell' Mg. Arche. Indust.")
- [Another edition.] Roma, 1874. 8vo.
- [Another edition.] *Tract.* 8vo. vol. 251. Milano, 1875. 8vo.
- Osservazioni idraulico-nautiche sui porti Neroniano ed Innocenziano in Anzio. *Tract.* 8vo. vol. 280. Roma, 1848. 8vo.
- Port Saïd : lettre à M. F. de Lesseps. Rome, 1888. 8vo.
(Suez Canal Tracts, Vol. I.)
- Risultate di studi idrodinamici, nautici e commerciali sul porto di Livorno e sul miglioramento ed ingrandimento del medesimo. Appendice seconda. *Tract.* 8vo. vol. 140. Roma, 1855. 8vo.
- Se portolevante escluda il fluttocorrente come causa del suo insabbiamento. *Tract.* 4to. vol. 63. Roma, 1870. 4to.
- Sintesi di fatti per dimostrare come il moto ondoso del mare anziché la corrente litorale è la cagione precipua del protendimento delle spiagge e della ostruzione de' porti, applicandone il risultamento all' ingresso del bosforo di Suez nella rada di Pelusio.
(Suez Canal Tracts, Vol. II.) Roma, 1860. 8vo.
- Sul moto ondoso del mare e su le correnti di esso specialmente su quelle litorali. Roma, 1866. 8vo.
- Les ports-canaux : article extrait de l'ouvrage sur le mouvement des ondes, sur les courants de la mer, et spécialement sur les courants littoraux. *Tract.* 8vo. vol. 160. Rome, 1866. 8vo.
- Sul porto-canale di Pesaro, etc. *Tract.* 8vo. vol. 140.
Pesaro, 1857. 8vo.
- CIALDI, A., and OTHERS. Relazione . . . intorno all'ingrandimento ed ordinamento migliore del Porto di Genova. *Tract.* 4to. vol. 78. Firenze, 1876. 4to.
- CIMINO, G, and VERDINOIS, C. Rock Dredging Works in some Italian Harbours (Leghorn, Genoa, Palermo). [2nd Int. Mar. Congr.] [Lond. 1893.] 8vo.
- CINCINNATI.—*Exhibition*. Report of the Board of Commissioners. Cincinnati, 1875. 8vo.
- *Millers' International Exhibition*. Report of the Expert on the test trials of Automatic Cut-off Steam Engines at the First Millers' International Exhibition, Cincinnati, June, 1880. *Tract.* 8vo. vol. 470. Cincinnati, 1880.
- CINCINNATI SOUTHERN RAILROAD. Report on the progress of work, cost of construction, etc. Cincinnati, 1875. 8vo.
- CINCINNATI, WILMINGTON, AND JANESVILLE RAILROAD. President's reports dated June 1 and May 20, 1857, and May 18, 1858, and Receiver's report dated May 1, 1859. *Tract.* 8vo. vol. 123. [1859.] 8vo.

- CINI, T. Del modo di migliorare l'arte del ferro in Toscana. *Tract.*
8vo. vol. 391. Firenze, 1849. 8vo.
- CIPOLLETTI, C. Canale Villoresi. *Tract.* 8vo. vol. 417.
Milano, 1886. 8vo.
- CIRENCESTER.—*Royal Agricultural College.* Prospectus, 1886—
88, (1890.) 1886—90. 8vo.
- CISNEROS, F. J. Ferro-carril de Antioquia. *New York*, 1878. 8vo.
- Ferro-carril del Cauca. Report, etc. *New York*, 1878. 8vo.
- Ferro-carriles de via estrecha. *Nueva York*, 1872. 8vo.
- Girardot Railway. Report and estimate, with contract and map.
Tract. 8vo. vol. 453. Lond. and New York, 1887. 8vo.
- La Dorada Railway. Report, contracts, estimates, etc. *Tract.*
8vo. vol. 453. Lond. 1887. 8vo.
- Reglamentos para la organizacion de los trabajos de construccion
y de servicio de explotacion de ferrocarriles. *Tract.* 8vo. vol. 393.
Bogota, 1884. 8vo.
- Report and documents on the Bolivar Railway. *Tract.* 8vo.
vol. 453. Lond. 1887. 8vo.
- CITY AND GUILDS OF LONDON INSTITUTE. Programmes,
reports, etc., 1885—6. Lond. 1884—86. 8vo.
- CITY OF LONDON COLLEGE. Calendar. Session 1885—86,
(1886—87, etc.). Lond. 1885, etc. 8vo.
- CITY OF PARIS, S.S. Copy of Report of the Inquiry into the
causes of the accident which recently happened to the passenger
ship "City of Paris." Lond. 1890. folio.
- CIVIL AND MECHANICAL ENGINEERS' SOCIETY. Trans-
actions. 1872—73—1879—80, (1882—83, etc.). (Several Papers of
1879—80 wanting.) Lond. 1874—78, 1883, etc. 8vo.
- CIVIL ENGINEERS, *American Society of.* See AMERICAN SOCIETY
OF CIVIL ENGINEERS.
- CIVIL ENGINEERS, *Institution of.* See INSTITUTION OF CIVIL
ENGINEERS.
- CIVIL ENGINEERS' CLUB OF THE NORTH-WEST. Incorporated in 1880 with the "Western Society of Engineers."
Papers read before the Club. Vol. 1, 3, 4.
Chicago, 1876—79. 8vo.
- Partial Report of the Committee on adoption of the Metric
System. *Tract.* 8vo. vol. 471. [Chicago,] 1878. 8vo.
- CIVIL ENGINEERS OF IRELAND. See INSTITUTION OF CIVIL
ENGINEERS OF IRELAND.
- CLAEYS, J. Les vitesses simultanées du piston et du tiroir des
machines à vapeur. *Tract.* 8vo. vol. 484. Gand, 1889. 8vo.

- CLAEYS, J.—*continued*. Nota su di un diagramma rappresentante le posizioni simultanee dello stantuffo e della cassetta. *Tract.* 8vo. vol. 479. *Milano*, 1888. 8vo.
- Nouveau système de machine à vapeur à détente variable automatique. *Tract. folio. vol. 46.* *Gand*, 1888. folio.
(Lithographed.)
- CLANNY, W. R. On the Safety Lamps of M. Mueseler and Dr. Reid Clanny. 1843. See MUESELER, —, and CLANNY, W. R.
- Priority of the invention of the Safety-Lamp. *Tract.* 8vo. vol. 78. *Gateshead*, 1844. 8vo.
- CLAPEYRON, B. P. E. Vues politiques . . . sur les travaux publics de France. 1832. See LAMÉ, G., and CLAPEYRON, E.
- CLAPP, G. H., and HUNT, A. E. On the Inspection of Materials of Construction in the United States. *Tract.* 8vo. vol. 495. [Lond.] 1890. 8vo.
- CLARE, J. Life-preserving Ships: a broadside for the Admiralty. *Tract.* 8vo. vol. 177. *Lond.* 1860. 8vo.
- CLARE, P. Report on the quantity of Rain falling along the lines of the Rochdale, Ashton-under-Lyne, and Peak Forest Canals. *Tract.* 8vo. vol. 194. *Manchester*, 1854. 8vo.
- CLARENCE, *River, N.S.W.* Report . . . relating to the proposed improvements to the entrance of the River Clarence. *Sydney*, 1890. folio.
- CLARK, D. K. The Construction of Roads and Streets. 1877. See LAW, H., and CLARK, D. K.
- An elementary treatise on Steam and the Steam Engine, *etc.* *Lond.* 1885. 8vo.
- The Exhibited Machinery of 1862; a cyclopædia of the machinery represented at the International Exhibition. *Lond.* 1864. 8vo.
- Fuel: its combustion and economy, *etc.* *Lond.* 1879. 8vo.
- London and Mid-Western Railway: statistical and engineering evidence in favour of this railway, founded on the observed magnitude and development of traffic on railways now in operation. *Tract.* 4to. vol. 52. *Lond.* 1853. 4to.
- A Manual of Rules, tables, and data for Mechanical Engineers. *Lond.* 1877. 8vo.
- Railway Machinery: a treatise on the mechanical engineering of railways, embracing the principles and construction of rolling and fixed plant. 2 vols. *Glasgow*, 1855. folio.
- The Steam Engine: a treatise on Steam Engines and Boilers, *etc.* 2 vols. *Lond.* 1892. 8vo.
- Specification for "Improvements in Filter presses." *Tract.* 4to. vol. 106. *Lond.* 1887. 4to.
- Tramways: their construction and working. (Supplementary volume.) 2 vols. *Lond.* 1878, 82. 8vo.
- CLARK, D. K., and COLBURN Z. Recent practice in the Locomotive Engine. *Glasgow*, 1860. folio.

- CLARK, E. The Britannia and Conway tubular Bridges, *etc.* 2 vols. (Atlas of plates.) *Lond.* 1850. 8vo. and folio.
- The Britannia Tubular Bridge, *etc.* *Tract.* 8vo. vol. 344. *Marlow*, 1881. 8vo.
- Clarence Hydraulic Dock at Malta. [MS. Plates and photographs.] 1872. 4to.
- Letter to Captain Huish, as to proposed improvements in the Electric Telegraph System, for the service of the L. and N. W. R. Co. *Tract.* 8vo. vol. 145. *Lond.* 1854. 8vo.
- Report upon the accident to the Hydraulic Canal lift at Anderton. *Tract.* folio. vol. 29. *Lond.* 1882. folio.
- A Visit to South America. *Lond.* 1878. 8vo.
- CLARK, E., STANDFIELD, J., and CLARK. Hydraulic Lift at La Louvière, on the Canal du Centre, near Mons, Belgium. Clark, Standfield and Clark, engineers. *Tract.* folio. vol. 43. *Lond.* 1889. folio.
- Hydraulic Lift at Les Fontinettes, on the Neuffossé Canal, near St. Omer, France. Clark, Standfield and Clark, engineers. *Tract.* folio. vol. 43. *Lond.* 1888. folio.
- Improved injection entrances to Hydraulic Presses. *Tract.* folio. vol. 28. (Lithographed.) *Lond.* 1882. folio.
- CLARK, E. H. Specification of a new Aerating Flower-Pot. *Tract.* 8vo. vol. 413. *Lond.* 1884. 8vo.
- Specification of a new means of Propelling Ships, *etc.* *Tract.* 4to. vol. 93. *Lond.* 1884. 4to.
- Specification of improvements in Floating Breakwaters. *Tract.* 8vo. vol. 413. *Lond.* 1884. 8vo.
- CLARK, Mrs. E. T. L. Important . . . invention. "Improvements in hardening and preserving Plaster-Paris Casts and moulds. *Tract.* folio. vol. 41. *Lond.* 1887. folio.
- CLARK, G., M.E. The Industries of Ulster. *Tract.* 4to. vol. 92. *Belfast*, 1882. 4to.
- CLARK, GEORGE. Model Lodging-houses in France: a new system, *etc.* *Tract.* 8vo. vol. 181. *Lond.* 1855. 8vo.
- CLARK, GEORGE T. Report to the General Board of Health on . . . the Sewerage, Drainage, and Supply of Water, and the sanitary condition of the borough of Newport. *Tract.* 8vo. vol. 133. *Lond.* 1850. 8vo.
- CLARK, H. J. Trinidad: a field for emigration. *Tract.* 8vo. vol. 426. *Port-of-Spain*, 1886. 8vo.
- CLARK, J. E. Ferrocarriles central de Corrientes y de Monte-Caseros  Misiones. *Buenos Aires*, 1887. 8vo.
- CLARK, J. M. A new system of laying out Railway Turnouts instantly, by inspection from tables. *New York*, 1884. 8vo.
- CLARK, L. A Dictionary of Metric and other useful Measures. *Lond.* 1891. 8vo.

- CLARK, L. — *continued*. An elementary treatise on Electrical Measurement. *Lond.* 1868. 8vo.
- *Traité élémentaire de la mesure électrique. Tract.* 8vo. vol. 380. *Paris*, 1872. 8vo.
- *Trattato elementario delle misurazioni elettriche*. Translated from the English by L. T. Picco. *Genova*, 1874. 12mo.
- Experimental investigation of the laws which govern the Propagation of the Electric Current in long submarine Telegraph Cables, conducted for the joint committee appointed by the Lords of the Committee of Privy Council for Trade and the Atlantic Telegraph Company. *Lond.* 1861. folio.
(From the Report of the Committee.)
- Inaugural address before the Society of Telegraph Engineers. *Tract.* 8vo. vol. 249. *Lond.* 1875. 8vo.
- On the Birmingham Wire-Gauge. Papers read before the mechanical section of the British Association . . . in September, 1867, and . . . in August, 1869. *Tract.* 8vo. vols. 182 and 168. *Lond.* 1867, 69. 8vo.
- The Transit Instrument. *Lond.* 1882. 8vo.
- — [Another edition.] *Lond.* 1884. 8vo.
- Transit Tables for 1883–87. *Lond.* 1883–87. 8vo.
- CLARK, L., and SABINE, R. Electrical Tables and Formulæ, for the use of telegraph inspectors and operators. *Lond.* 1871. 12mo.
- CLARK, N. G., and OTHERS. A scale of prices for job work, on old ships : carefully arranged and compiled for the shipwrights of the river Thames. *Lond.* 1825. 8vo.
- CLARK, Dr. T. A practical view of the amendments needful in the existing Weights and Measures of the United Kingdom. *Tract.* 8vo. vol. 57. *Edinburgh*, 1833. 8vo.
- On the application of Hot-Blast in the manufacture of Cast Iron. *Tract.* 4to. vol. 35. *Edinburgh*, 1835. 4to.
(From the Transactions of the Royal Society of Edinburgh.)
- CLARK, W. Adelaide Waterworks. *Adelaide*, 1877. folio.
- Drainage of the town and port of Adelaide. *Adelaide*, 1878. folio.
- Drainage scheme for Christchurch and suburbs. Folio. *Christchurch*, 1878. folio.
- Letters patent for his Invention of "Improvements in Lubricating apparatus." *Tract.* 4to. vol. 50. *Lond.* 1858. 4to.
- Report on Goulburn Water Supply. 1877. See GOULBURN.
- Report on the Drainage of Madras. *Tract.* folio. vol. 26. *Madras*, 1875. folio.
- Report on the Drainage of the City of Wellington and disposal of the sewage. *Tract.* folio. vol. *Wellington*, 1878. folio.

- CLARK, W.—*continued*. See INDIA.—CALCUTTA. [*Drainage*.] Letter from the Municipal Commissioners, forwarding Report . . . by W. Clark. 1855.
- CLARK, W. B. Correlation Papers.—Eocene. [*U.S. Geol. Survey. Bulletin No. 83.*] Washington, 1891. 8vo.
- The Mesozoic Echinodermata of the United States. [*U.S. Geol. Survey. Bulletin No. 97.*] Washington, 1892. 8vo.
- CLARK, W. T. An account, with illustrations, of the Suspension Bridge across the river Danube, uniting Pesth with Buda. (Atlas of plates.) Lond. 1852–53. 8vo.
- CLARKE, Sir A., *Lieut.-Gen., R.E.* Minute on the Engineer Establishment of the Indian P. W. D. 1877. See INDIA.—[*Engineers*.]
- Report on the [*Suez*] Maritime Canal, *etc.* 1870. See RICHARDS, G. H., and CLARKE, A.
- Report on the Vyrnwy Masonry Dam. *Tract. 8vo. vol. 417.* Liverpool, 1886. 8vo.
- CLARKE, A. R., *Col., R.E.* Account of the observations and calculations, of the principal triangulation; and of the figure, dimensions and mean specific gravity of the earth as derived therefrom, *etc.* (Ordnance Trigonometrical Survey of Great Britain and Ireland.) 2 vols. Lond. 1858. 4to.
- Determination of the positions of Feaghmain and Haverfordwest, longitude stations on the great European arc of parallel; being an appendix to the account of the principal triangulation of Great Britain and Ireland. Lond. 1867. 4to.
- Geodesy. Oxford, 1880. 8vo.
- CLARKE, C. Observations on the intended Tunnel beneath the river Thames. Gravesend, 1799. 4to.
- CLARKE, C. C. P. The true method of Representation in Large Constituencies. *Tract. 8vo. vol. 485.* New York, 1873. 8vo.
- CLARKE, E. C. City Scavengering at Boston. *Tract. 8vo. vol. 325.* [1879.] 8vo.
- Main Drainage works of the city of Boston. Boston, 1885. 8vo.
- — 3rd edition. Boston, 1888. 8vo.
- CLARKE, E. D. A syllabus of lectures in Mineralogy. Cambridge, 1807. 8vo.
- CLARKE, F. W. A Table of Specific Gravity for solids and liquids. (Constants of Nature: Part I.) New edition, enlarged. Lond. 1888. 8vo.
- Report of Work done in the Division of Chemistry and Physics . . . during the year 1883–84 (1884–85—1889–90). [*U.S. Geol. Survey. Bulletin Nos. 9, 27, 42, 60, 64, 78.*] Washington, 1884–91. 8vo.
- Weights, Measures and Money of all nations. New York, 1876. 8vo.
- CLARKE, G. R. The Reform of the Sewers. . . or, manure wasted and land starved. *Tract. 8vo. vol. 156.* Lond. 1860. 8vo.

CLARKE, G. S. Perspective explained and illustrated.

Lond. 1884. 8vo.

— Practical Geometry, Perspective and Engineering Drawing. 2nd edition. (Atlas.) 2 vols. *Lond.* 1884. 8vo. and 4to.

— The principles of Graphic Statics. *Lond.* 1880. 4to.

CLARKE, H. Colonization, Defence, and Railways, in our Indian empire. *Tract.* 8vo. vol. 123. *Lond.* 1857. 8vo.

— A comparison of Morecambe Bay, Barrow-in-Furness, North Lancashire, West Cumberland, etc. 1836 and 1883. *Tract.* 8vo. vol. 393. *Barrow*, 1884. 8vo.

— Contributions to Railway Statistics in 1845, (1846–48). *Tract.* 8vo. vols. 69 and 82. *Lond.* 1846, 49. 8vo.

— On Copper Smelting. *Tract.* 8vo. vol. 126. *Lond.* 1858. 8vo.

— Ottoman Railway Company. Report on the traffic of Smyrna. *Tract.* 8vo. vol. 317. *Lond.* 1860. 8vo.

— Practical and theoretical considerations on the Management of Railways in India. *Tract.* 8vo. vol. 82. [1847?] 8vo.

— The Railway Portfolio. Vol. 1. *Lond.* 1846. 8vo.

— The statistics of Belgian Railway Traffic in 1844 and 1845. *Tract.* 8vo. vol. 96. *Lond.* 1846. 8vo.

— Theory of Investment in Railway Companies. *Tract.* 8vo. vol. 77. *Lond.* 1846. 8vo.

— Two articles on the Gauge Question, and on the performance of the Great Western leviathan locomotive. *Tract.* 8vo. vol. 77. *Lond.* 1846. 8vo.

CLARKE, H. W., Col. Calculations to ascertain the transverse strength of a Railway Rail. *Tract.* folio. vol. 46. *Calcutta*, 1890. folio.

— Note on Elephants. Report on the transporting of elephants by railway. *Tract.* folio. vol. 25. *Calcutta*, 1879. folio.

CLARKE, J. F. M. The Geology of the Bridgewater Railway. *Tract.* 8vo. vol. *Bath*, 1891. 8vo.

— Three weeks in Norfolk ; being a portion of the "Rover's" log. *Lond.* 1887. 8vo.

CLARKE, J. M. On the Higher Devonian Faunas of Ontario County, New York. [*U.S. Geol. Survey.* Bulletin No. 16.] *Washington*, 1885. 8vo.

CLARKE, T. C. An account of the iron Railway Bridge across the Mississippi river, at Quincy, Ill. *New York*, 1869. 4to.

— The Greatest Bridge in the World [i.e. the Forth Bridge]. *Tract.* 8vo. vol. 510. *New York*, 1891. 8vo.

CLARKE, T. C., and OTHERS. The American Railway : its construction, development, management, and appliances. *New York*, 1889. 8vo.

- CLARKE, T. C., REEVES, D., and Co. Album of designs of the Phoenixville Bridge Works. (Supplement.) *Tract. 4to. vols. 83 and 84. Philadelphia, 1873. 4to.*
- CLARKE, Rev. W. B. On the progress of Gold Discovery in Australasia from 1860 to 1871. *Tract. 8vo. vol. 263. Sydney, 1871. 8vo.*
- Remarks on the Sedimentary Formations of New South Wales. 4th edition. *Tract. 8vo. vol. 390. Sydney, 1878. 8vo.*
- CLARKSON, E. The Suez Navigable Canal, for accelerated communication with India. 2nd edition. *Tract. 8vo. vol. 163. Lond. 1843. 8vo.*
- CLARKSON, T. Researches on the Dry Concentration of the Sulphides of the Barrier Range, New South Wales, with a proposed system of treatment by the Clarkson-Stanfield Concentrator. *Tract. 8vo. vol. 530. [Lond. 1893.] 8vo.*
- CLAUDE, G. Les inconvénients des canalisations à courant continu. *Tract. 4to. vol. 116. [Paris, 1892.] 4to.*
- CLAUDEL, J. Formules, tables et renseignements pratiques ; aide-mémoire des ingénieurs, etc. 5^{me} édition. *Paris, 1860. 8vo.*
- Introduction théorique et pratique à la science de l'ingénieur. 2^{me} édition. *Paris, 1857. 8vo.*
- La théorie des parallèles selon les géomètres japonais. *Tract. 8vo. vol. 245. Bruxelles, 1875. 8vo.*
- CLAUDEL, J., and LABOQUE, L. Pratique de l'art de construire : maçonnerie, terrasse, et plâtrerie. 2^{me} édition. *Paris, 1859. 8vo.*
- CLAUDET, A. A. Claudet, F.R.S. : a memoir. *Tract. 8vo. vol. 183. Lond. 1868. 8vo.*
- CLAUSIUS, R. J. E. Die mechanische Wärmetheorie. 2 Bde. Zweite Auflage. *Braunschweig, 1876–79. 8vo.*
- The Mechanical Theory of Heat, with its applications . . . Edited by T. A. Hurst, with an introduction by Professor Tyndall. *Lond. 1867. 8vo.*
- The Mechanical Theory of Heat : translated by W. R. Brown. *Lond. 1879. 8vo.*
- Théorie mécanique de la chaleur. 2 vols. *Paris, 1868–69. 8vo.*
- Examen des objections faites par M. Hirn à la théorie cinétique des gaz. *Tract. 8vo. vol. 420. Bruxelles, 1886. 8vo.*
- Die Potential-function und das Potential. *Tract. 8vo. vol. 272. Leipzig, 1877. 8vo.*
- Ueber den Zusammenhang zwischen den Einheiten des Magnetismus und der Electricität. *Tract. 8vo. vol. 468. Leipzig, 1882. 8vo.*
- Über den zweiten Hauptsatz der mechanischen Wärmetheorie. *Tract. 8vo. vol. 281. Braunschweig, 1867. 8vo.*
- Ueber die Ableitung eines neuen elektrodynamischen Grundgesetzes. *Tract. 4to. vol. 96. [Berlin, 1877.] 4to.*

- CLAUSIUS, R. J. E.—*continued*. Ueber die Anwendung des electro-dynamischen Potentials zur Bestimmung der ponderomotorischen und electromotorischen Kräfte, etc. *Tract. 8vo. vol. 331.*
[Bonn, 1880.] 8vo.
- Ueber die Behandlung der zwischen linearen Strömen und Leitern stattfindenden ponderomotorischen und electromotorischen Kräfte nach dem electrodynamischen Grundgesetze. *Tract. 8vo. vol. 281.*
Bonn, 1876. 8vo.
- Ueber die verschiedenen Maasssysteme zur Messung der electrischen und magnetischen Grössen. *Tract. 8vo. vol. 337.*
Bonn, 1882. 8vo.
- Zur Theorie der dynamoelectrischen Maschinen. *Tract. 8vo. vol. 468.*
Leipzig, 1883. 8vo.
- On the Theory of the Dynamo-Electric Machine. Translated and abstracted by Paget Higgs. *Tract. 8vo. vol. 479.*
Lond. 1884. 8vo.
- Zur Theorie der Kraftübertragung durch dynamoelektrische Maschinen. *Tract. 8vo. vol. 380.*
Leipzig, [1884.] 8vo.
- CLAUSSEN, E. Die Kleinmotoren und die Kraftübertragung von einer Centralen: ihre wirthschaftliche Bedeutung für das Klein-gewerbe, ihre Konstruktion und Kosten, etc. *Berlin, 1891. 8vo.*
- CLAUSTHAL.—*Königliche Bergakademie*. Programm, 1890–91.
Leipzig, 1890. 8vo.
- CLAUZEL, G. Étude sur le rivetage. *Paris, 1882. 4to.*
- CLAVERING, R. An essay on the construction and building of Chimneys. *Tract. 8vo. vol. 211.*
Lond. 1779. 8vo.
- CLAY, Sir W., Bart. Remarks on the Water Supply of London. *Tract. 8vo. vol. 109.*
Lond. 1849. 8vo.
- CLAY CROSS COLLIERIES. Report by A. Morley . . . on . . . a fatal accident . . . 1882.
Lond. 1882. folio.
- CLAYE, A. D-. See DURAND-CLAYE, A.
- CLAYE, L. D-. See DURAND-CLAYE, L.
- CLAYTON, A. G., Capt. Notes on Gas Supply and distribution.
Chatham, 1883. 8vo.
- Notes on Joinery: doors and windows. *Chatham, 1883. 8vo.*
- CLAYTON, J. Observations on the proposed Decimal Coinage. *Tract. 8vo. vol. 202.*
Lond. 1856. 8vo.
- CLAXTON, Capt. R.N. A description of the "Great Britain" Steam-ship. *Tract. 8vo. vol. 280.*
Bristol, 1845. 8vo.
- CLEARING HOUSE. See RAILWAY CLEARING HOUSE.
- CLEATOR AND WORKINGTON JUNCTION RAILWAY. Report by the Board of Trade . . . on the Classification of Mer-chandise Traffic, and Schedule of Maximum Rates, etc.
Lond. 1891. folio.
- CLEEMAN, T. M. The Railroad Engineer's Practice.
New York, 1880. 8vo.
- — — 2nd edition. *New York, 1883. 8vo.*

- CLEGG, S. Description of S. Clegg's dry Gas-meter. *Tract.* 8vo. vol. 58. *London*. [1838?] 8vo.
- Description of S. Clegg's patent Atmospheric Railway. *Tract.* 8vo. vol. 81. *London*. 1839. 8vo.
- CLEGG, S., and SAMUDA, J. Atmospheric Railway. *Tract.* 8vo. vol. 138. *London*. 1840. 8vo.
- CLEGG, S., Jun. Architecture of Machinery ; an essay on propriety of form and proportion. *London*. 1842. 4to.
- Introductory lecture on Civil Engineering and Architecture. *Tract.* 8vo. vol. 84. *London*. 1849. 8vo.
- Lectures on Architecture. [*London*. 1852.] 4to.
- A practical treatise on the manufacture and distribution of Coal Gas. *London*. 1841. 8vo.
- — 2nd edition. *London*. 1853. 4to.
- — 3rd edition. *London*. 1859. 4to.
- CLEGRAM, W. Sailing directions for New Shoreham Harbour. *Tract.* 8vo. vol. 38. 1823. 8vo.
- CLEGRAM, W. B. Gloucester and Berkeley Canal. Report on Mr. E. Leader Williams's pamphlet, entitled "The Severn as it was, is, and ought to be." *Tract.* folio. 1863. folio.
- CLEGRAM, W. B., and OTHERS. Report on Wilts and Berks Canal and Thames and Isis Navigation. *Tract.* folio. vol. 45. Gloucester, 1883. folio.
- CLELAND, J. Description of the Banquet given in honour of Sir R. Peel, Bart., M.P., on his election as Lord Rector of the University of Glasgow : with plans of the temporary banquetting hall. Glasgow, 1837. 4to.
- Enumeration of the Inhabitants of the city of Glasgow and county of Lanark, for the government census of 1831, &c. Glasgow, 1831. folio.
- Exemplification of the Weights and Measures of the city of Glasgow and the under ward of Lanarkshire ; together with an account of the weights and measures of several towns in Scotland. *Tract.* 8vo. vol. 15. Glasgow, 1822. 8vo.
- A historical account of Bills of Mortality, and the probability of human life in Glasgow and other large towns. *Tract.* 8vo. vol. 12. Glasgow, 1836. 8vo.
- Report to the Hon. the Lord Provost . . . of Glasgow, respecting the operation of boring for Coal in the Green of Glasgow. *Tract.* 4to. vol. 16. Glasgow, 1822. 4to.
- CLEMENCEAU, P. Les machines dynamo-électriques de leur origine jusqu'aux derniers types industriels. Paris, [1889?] 8vo.
- CLEMENTS, E. Taxes and Tolls upon the Inland Navigations of the United Kingdom. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo

- CLEMES, J. P. Reports on the Silver Mines of Almada, *etc.* 1867.
See PETHERICK, J., and CLEMES, J. P.
- CLEMINSHAW, C. G. Gas: its price and quality. *Tract.* 8vo.
vol. 283. *Lond.* 1865. 8vo.
- CLERC, A. Mémoire sur une nouvelle théorie de la résistance des
 poutres. *Tract.* 8vo. *vol.* 412. *Paris*, 1880. 8vo.
- Notes sur les machines Dubois et François permettant de sup-
 primer l'emploi de la poudre dans l'exploitation des mines de
 charbon à grisou. *Tract.* 8vo. *vol.* 409. *Paris*, [1883.] 8vo.
- CLERCQ, G. A. DE. La pisciculture et le repeuplement des eaux
 belges. *Tract.* 8vo. *vol.* 349. *Bruzelles*, 1881. 8vo.
- CLERGEAU, E. Guide pratique du chauffeur et du mécanicien sur
 les bateaux-torpilleurs. *Paris*, 1888. 8vo.
- CLERICETTI, C., *Prof.* Il ponte-acquedotto . . . di Spoleto. *Tract.*
4to. *vol.* 93. *Milano*, 1854. 4to.
- Il principio della cerniera nelle volte. *Tract.* 8vo. *vol.* 245.
Milano, 1873. 8vo.
- R. Istituto Tecnico Superiore. Esperienze sui materiali. Seconda
 serie 1871. Esperienze sui calcestruzzi. *Tract.* 4to. *vol.* 69.
Milano, 1871. 4to.
- Recerche sull' architettura Lombarda. *Tract.* 8vo. *vol.* 245.
Milano, 1869. 8vo.
- Scienza delle costruzioni. Sulla determinazione dei coefficienti di
 sforzo specifico pel ferro, indipendentemente dai numeri di Wöhler.
Tract. 8vo. *vol.* 472. *Milano*, 1883. 8vo.
- Teoria dei composti in generale e specialmente di moderni ponti
 sospesi americani. *Tract.* 4to. *vol.* 83. *Milano*, 1878. 4to.
- In memoria del Profre. Ingre. C. Clericetti morto il 30 maggio,
 1887. *Tract.* 8vo. *vol.* 449. *Milano*, 1887. 8vo.
- CLERK, D. The Gas Engine. *Lond.* 1886. 8vo.
- CLERK, H., *Colonel R.A.* Experiments on Friction. *Tract.* 8vo. *vol.*
 165. *Woolwich*, 1868. 8vo.
- On the application of Hydraulic Buffers. *Tract.* 8vo. *vol.* 166.
Woolwich, 1868. 8vo.
- CLERK-MAXWELL, J. *See* MAXWELL, J. C.
- CLERKS OF WORKS ASSOCIATION of Great Britain. *Journal.*
Vol. 1, *etc.* *Lond.* 1883, *etc.* 8vo.
- CLERKS OF WORKS SOCIETY. Reports . . . with cash state-
 ments for the years 1842–3, 6, 7, and 8, and Catalogues of the
 Books in the Library. *Tract.* 8vo. *vols.* 68 and 86.
Lond. 1843–49. 8vo.
- CLEVELAND, *Yorks.* Notes on the industries of Cleveland and
 South Durham, prepared for the use of the Iron and Steel Insti-
 tute, *etc.* *Tract.* 8vo. *vol.* . *Middlesbrough*, 1885. 8vo.
- CLEVELAND, *Mount.* Reports on the Specimen [Gold] Reef, near
 Mount Cleveland and the Corinna Gold Field: by G. Thureau.
[Hobart,] 1884. folio.

- CLEVELAND, *Ohio*.—*Civil Engineers' Club*. Transactions. See ASSOCIATION OF ENGINEERING SOCIETIES. Journal.
- *Civil Engineers' Convention*. Proceedings. Bulletin 2. *Tract*. 8vo. vol. 508. *Cleveland*, 1885. 8vo.
- *Engineering Societies*. Proceedings of the Council of Engineering Societies on National Public Works, held at Cleveland, Ohio. Bulletins, Nos. 13 and 15. *Tract*. 8vo. vol. 508. *Cleveland*, 1886. 8vo.
- CLEVELAND, *Queensland*. Cleveland Branch Railway. Report from the Select Committee, etc. *Brisbane*, 1886. folio.
- CLEVELAND INSTITUTION OF ENGINEERS. Proceedings, 1870, etc. *Middlesbrough*, 1870, etc. 8vo.
- CLIFFORD, E. Arithmetic considerations on Marquoi's parallel scales and the protractor. *Tract*. 8vo. vol. 54. *London*. 1841. 8vo.
- Fractional Arithmetic reviewed. *London*. 1842. 12mo.
- CLIFFORD, W. K. The Common Sense of the Exact Sciences. 3rd edition. [International Scientific Series.] *London*. 1892. 8vo.
- Elements of dynamic: an introduction to the study of motion and rest. Part I. Kinematic. *London*. 1878. 8vo.
- Lectures and Essays: edited by L. Stephen and F. Pollock. With an Introduction [containing a biographical notice of the author and selections from his letters] by F. Pollock. 2nd edition. *London*. 1886. 8vo.
- Mathematical Papers. Edited [with a preface, biographical and bibliographical] by R. Tucker, etc. *London*. 1882. 8vo.
- Seeing and Thinking. [A series of Lectures on the Eye and Brain.] *London*. 1890. 8vo.
- CLIFTON, E. C., and GRIMAU, A. A new Dictionary of the French and English languages. New edition. 2 vols. *Paris*, [1886?] folio.
- CLIFTON BRIDGE. A Bill for building a Bridge over the River Avon from Clifton . . . to the opposite side, etc. *London*. 1830. folio.
- CLIFTON HALL COLLIERY. Report by Arnold Morley upon the explosion which occurred on the 18th of June, 1885, in the Trencherborne Mine of the Clifton Hall Colliery. *London*. 1885. folio.
- CLINTON, H. F. Fasti Hellenici, etc. *Oxford*, 1824. 4to.
- CLISSOLD, S. A letter addressed to the Earl of Stradbroke, as to the expediency of improving the harbour of Southwold, by means of the river Blyth. *Tract*. 8vo. vol. 75. *Halesworth*, 1840. 8vo.
- CLOCKMAKERS' COMPANY. Catalogue of the Library of the Company. *London*. 1830. 8vo.

- CLOCKMAKERS' COMPANY**—*continued*. A statement of the various proceedings and transactions between the Court of Assistants of the Clockmakers' Company of the City of London, and his Majesty's Government, in relation to the importation of foreign clocks and watches into these realms from 1787 to 1841; with addenda, containing address to the trade and the public. *Tract. 8vo. vol. 385. Lond. 1841. 8vo.*
- CLOQUET, J. B.** Nouveau traité élémentaire de perspective à l'usage des artistes. *Tract. 4to. vol. 77. [Paris, 1823.] 4to.*
- CLOUÉ, G.** Le filage de l'huile. 3^{me} édition. *Paris, 1887. 8vo.*
- CLOWES, W. L.** Report on the proposed Pauper Lunatic Asylum, for the County of Derby, *etc.* 1844. *See OAKES, J., CLOWES, W. L., and BENT, J.*
- CLUTHA, River, N.Z.** Report of the Commission on the Floods in the River Clutha. *Wellington, 1880. folio.*
- CLUTTERBUCK, Rev. J. C.** An Answer to Mr. Stephenson's Second Report to the Directors of a Proposed Company [for supplying London with water from the Colne Valley]. *Tract. 8vo. vol. 78. Watford, 1842. 8vo.*
- A Letter to Sir J. Sebright, Bart., on the effects which will be produced by taking a supply of water to the Metropolis from the valley of the Colne, by the proposed London and Westminster Water Company. *Tract. 8vo. vol. 78. Watford, 1841. 8vo.*
- Observations on the periodical Drainage and replenishment of the subterraneous reservoir in the Chalk Basin of London. *Tract. 8vo. vol. 78. Lond. 1843. 8vo.*
- On the periodical Alternations and progressive permanent Depression of the Chalk Water Level under London. *Tract. 8vo. vol. 501. (From Min. Proc. Inst. C.E.) Lond. 1850. 8vo.*
- Water-supply. *Tract. 8vo. vol. 151. Lond. 1863. 8vo.*
- CLUYSENAAR, J. P.** Chemin de fer de Dendre et Waes. Bâtimens des stations et maisons de garde. *Bruxelles, 1855. folio.*
- CLYDE, River.** An Act for building a Bridge over the River Clyde near the Town of Hamilton, *etc.* *Lond. 1770. folio.*
- Amended Act for the Navigation of the River Clyde. *Lond. 1809. folio.*
- Clyde Navigation Bill. Minutes of Evidence. *Tract. folio. vol. 8. Lond. 1840. folio.*
- Report on the plans [submitted to the Parliamentary Trustees of the Clyde] for preventing Accidents on board of Steam vessels. *Tract. 8vo. vol. 286. Glasgow, 1839. 8vo.*
- Report on an Explosion of Dynamite on the River Clyde off Gravel Point, near Greenock, 16 April, 1881. *Lond. 1881. folio.*
- Report of Sir John Hawkshaw as to the Purification of the River Clyde. *Lond. 1876. folio.*
- Reports on the improvement and management of the River Clyde and harbour of Glasgow from 1755 to 1853, from 1853 to 1869) 2 pt. *Glasgow, 1854-79. 78vo.*
- See also DEAS, J.*

- CLYDE STEAM AND SAILING SHIPOWNERS' ASSOCIATIONS, GLASGOW. Lectures delivered during the winter. 1887-88. *Glasgow*, 1887-88. 8vo.
- COATES, T. Notes on the present condition of Railway Legislation. *Tract.* 8vo. vol. . *Lond.* 1854. 8vo.
- Railway deposits discussed, in a Letter to the Chairman of the Committee. *Tract.* 8vo. vol. . *Lond.* 1864. 8vo.
- COCHRAN-PATRICK, R. W. Early records relating to Mining in Scotland. *Edinburgh*, 1878. 4to.
- COCHRANE, A. A., *Rear-Admiral*. Report on the uses of Bitumen, etc. *Tract.* 8vo. vol. 209. *Lond.* [1870 ?]. 8vo.
- COCK, D. A Treatise on the nature, production, and uses of China Clay, etc. *Lond.* [1880.] 8vo.
- COCKER, E. Arithmetic: being a plain and familiar method, etc. 55th edition. *Lond.* 1758. 8vo.
- COCKERILL, J. Portefeuille, ou description des machines construites dans les établissements de Seraing. 4 vols. (Atlases of plates.) *Paris and Liège*, 1859. 4to and folio.
- COCKERMOUTH, KESWICK, AND PENRITH RAILWAY. Report by the Board of Trade . . . on the Classification of Merchandise Traffic and Schedule of Maximum Rates, etc. *Lond.* 1891. folio.
- COCKLE, JAMES. *Horæ Algebraicæ*. VIII. A new Algebra, [the Algebra of impossible quantities]. *Tract.* 8vo. vol. 193. *Lond.* 1848. 8vo.
- COCKLE, JOHN. Report on the proposed Sewage Farm at East Molesey, etc. *Tract.* 8vo. vol. 511. *Lond.* 1879. 8vo.
- COCKRILL, J. W. Borough of Great Yarmouth electric light. Information supplied by the engineers and surveyors of various cities and towns. *Tract.* 4to. vol. 119. *Great Yarmouth*, 1891. 4to.
- CODRINGTON COLLEGE, *Barbados*. [Reports for 1886-88.] *Barbados*, [1886-88.] 8vo.
- CODRINGTON, T. Macadamised Roads. 2nd edition, revised and enlarged. *Lond.* 1892. 8vo.
- The Maintenance of macadamised Roads. *Lond.* 1879. 8vo.
- Report on Road Maintenance. *Tract.* 8vo. vol. 490. *Lond.* 1889. 8vo.
- Report on the Destruction of town Refuse. *Tract.* 8vo. vol. 456. *Lond.* 1888. 8vo.
- COELLO, Don F. Proyecto de las lineas generales de navegacion y de ferro-carriles en la peninsula Espanola. *Madrid*, 1855. 8vo.
- COËNE, J. DE. Amélioration de l'estuaire de la Seine et de l'entrée du port du Havre. *Tract.* 8vo. vol. 418. *Rouen*, 1886. 8vo.
- Les chemins de fer en Angleterre: construction et exploitation des gares à marchandises dans les grandes villes. *Tract.* folio. vol. 22. *Rouen*, 1875. folio.

COËNE, J. DE—*continued*. Étude sur le chômage des canaux et des rivières canalisées. *Tract. 8vo. vol. 521. Rouen, 1892. 8vo.*

— Étude sur les expériences de M. Vernon-Harcourt et le Congrès Maritime à l'exposition à propos des projets d'amélioration du port du Havre et des Passes de la Seine, suivi de la traduction de la Note de F. Vernon-Harcourt relatant les expériences sur les digues de l'Estuaire de la Seine. *Tract. 8vo. vol. 494.*

Rouen, 1890. 8vo.

(Extrait du "Bulletin de la Société Industrielle de Rouen," Année 1890.)

— Mémoire sur les améliorations à apporter au Port du Havre et dans l'estuaire de la Seine et Mémoire de M. le Brun (Raymond). *Tract. 8vo. vol. 430. Paris, 1886. 8vo.*

— Mémoire sur l'organisation des associations pour prévenir les accidents du travail : rôle de l'initiative privée en matières de préventions. [*Congrès des accidents du travail, Berne, 1891.*] *Tract. 8vo. vol. 513. Rouen, 1891. 8vo.*

— Rapport sur les travaux du Congrès international de navigation intérieure tenu à Paris en 1892. *Tract. 8vo. vol. 521.*

Rouen, 1893. 8vo.

— La Seine rade de guerre. *Tract. 8vo. vol. 528.*

Rouen, 1892. 8vo.

COGHLAN, F. The Iron Road Book and Railway Companion from London to Birmingham, Manchester and Liverpool, etc.

Lond. 1838. 12mo.

COGHLAN, T. A. Handbook to the Statistical Register of the colony of New South Wales for the year 1886. Revised edition.

Sydney, 1887. 8vo.

— A Statistical Account of the seven colonies of Australasia.

Sydney, 1890. 8vo.

— [Another edition.]

Sydney, 1893. 8vo.

— The Wealth and Progress of New South Wales . . . 4th, (5th-7th) issue.

Sydney, 1890-93. 8vo.

COHN, G. Englische Eisenbahnpolitik. 2 vols. in 1.

Leipzig, 1874-75. 8vo.

— Supplement.

Leipzig, 1883. 8vo.

COIGNET, F. Bétons agglomérés appliqués à l'art de construire, notamment à l'état monolithe . . . et à l'état de pierres artificielles.

Paris, 1861. 8vo.

— Sur l'emploi des bétons moulés et comprimés dans la construction des murs en élévation. *Tract. 8vo. vol. 160. Paris, 1855. 8vo.*

COIGNET, P. Note sur les chapes de routes en mastic bitumineux de Seyssel à l'épreuve de la bombe. *Tract. 8vo. vol. 264.*

Paris, 1875. 8vo.

COISNE, C. Notes sur la préparation des bois. MS.

Gand, 1868. folio.

— Note sur les bois préparés exposés à Paris en 1867, suivie de quelques considérations sur les bois injectés en Belgique. [MS.]

[*Gand, 1868.*] folio.

- COKE, R. G. The Pollution of Rivers and Streams, a source of injury to the land owner, tenant farmer, and the public health. *Tract.* 8vo. vol. 236. *Lond.* 1874. 8vo.

(From the Transactions of the Chesterfield Institute of Engineers.)

- COLA, P. R. How to develop Productive Industry in India and the East, etc. *Lond.* 1867. 8vo.

- COLANGE, L. DE. The National Gazetteer : a geographical dictionary of the United States. *Cincinnati*, 1884. 8vo.

- COLBURN, Z. The Gasworks of London. *Tract.* 8vo. vol. 248. *Lond.* 1865. 8vo.

- An Inquiry into the nature of Heat, and into its mode of action in the phenomena of combustion, vaporisation, etc. *Tract.* 8vo. vol. 373. *Lond.* 1863. 8vo.

- Locomotive Engineering, and the Mechanism of Railways . . . (Atlas of plates.) *Lond.* 1871. 4to.

- Recent practice in the Locomotive Engine, etc. 1860. See CLARK, D. K., and COLBURN, Z.

- Steam Boiler Explosions. *Tract.* 8vo. vol. 122. *Lond.* 1860. 8vo.

- COLBURN, Z., and HOLLEY, A. L. The Permanent Way and coal-burning locomotive boilers of European railways ; with a comparison of the working economy of European and American lines, etc. *New York*, 1858. folio.

- COLBURN, Z., and MAW, W. H. The Waterworks of London, together with a series of articles on various other waterworks. (Reprinted from "Engineering.") *Lond.* 1867. 8vo.

- COLBY, T. Abstracts of principal Lines of Spirit-Levelling in Ireland, carried on during the years 1839 to 1843. *Lond.* 1855. 4to.

- An Account of the Trigonometrical Survey 1801–1809. 1811. See MUDGE, W. *Lieut.-Col., R.A.*, and COLBY, T.

- Ordnance Survey of the county of Londonderry. Vol. 1. Parish of Templemore, etc. *Dublin*, 1837. 4to.

- COLBY, T., and YOLLAND, W. Ordnance Survey : astronomical observations with Ramsden's zenith sector, etc. *Lond.* 1842. 4to.

- COLCOCK, D. D. On Mechanical Filtration. *Tract.* 8vo. vol. 444. *New Orleans*, 1887. 8vo.

- COLDING, L. A. An Examination of Steam Engines and the power of steam, etc. *Tract.* 8vo. vol. 99. *Copenhagen*, [1851.] 8vo.

- Ueber die Zugverhältnisse in verschiedenen Abtheilungen der Retortenöfen. *Tract.* 8vo. vol. 250. *München*, 1874. 8vo.

- COLDSTREAM, Dr. J. On the structure and habits of the *Limnoria Terebrans* ; a minute crustaceous animal, destructive to marine wooden erections, etc. *Tract.* 8vo. vol. 19. *Lond.* 1834. 8vo.

- COLE, A. S. Cantor Lectures on the art of Lace-making, etc. *Lond.* 1881. 8vo.

- Cantor Lectures on the arts of Tapestry-making and Embroidery, etc. *Lond.* 1886. 8vo.

- COLE, C. N. A collection of Laws which form the constitution of the Bedford Level Corporation . . . 2nd edition. *Lond.* 1803. 8vo.
- Extracts from the report of a view of the South Level, part of the Great Level of the Fenns, called Bedford Level ; taken in the summer of the year 1777, *etc.* *Tract.* 8vo. vol. 159. 1784. 8vo.
- COLE, E. M. Notes on the Geology of the Hull, Barnsley, and West Riding Junction Railway and Dock. *Hull*, 1886. 8vo.
- COLE, F. N. The Diurnal Variation of Barometric Pressure. [*U.S. Dep. of Agriculture. Weather Bulletin*, 6.] *Washington*, 1892. 8vo.
- COLE, G. The Contractor's Book of working drawings of tools and machines used in constructing canals, railroads, and other works, with bills of timber and iron : also tables and data for calculating the cost of earth and other kinds of work. *Buffalo*, 1855. 4to.
- COLE, G. A. J. Aids in practical Geology, *etc.* *Lond.* 1891. 8vo.
- COLE, G. F. Royal Mějratu (Iceland) Sulphur Exploring Company. Engineer's report. *Tract.* 8vo. vol. 263. *Lond.* 1875. 8vo.
- The Saltpetre Deposits of Peru. *Tract.* 8vo. vol. 253.
(From the Journal of the Society of Arts.) *Lond.* 1875. 8vo.
- COLE, H., *C.B.* Observations on the expediency of carrying out the proposals of the Commissioners for the Exhibition of 1851 for the promotion of institutions of science and art at Kensington, *etc.* *Tract.* 8vo. vol. 115. *Lond.* 1853. 8vo.
- A special report on the annual International Exhibitions of the years 1871, 1872, 1873, and 1874. *Lond.* 1875. 8vo.
- COLE, H. W. Saint Augustine : a poem in eight books. *Edinburgh*, 1877. 8vo.
- COLE, J. A. Anchor Ice as affecting Public Water Supply. *Tract.* 8vo. vol. 455. [*Chicago*, 1879.] 8vo.
- COLE, P., *Lieut., R.E.* Lectures on the Harmony of Sound and Form. *Tract.* 8vo. vol. 243. *Chatham*, 1865. 8vo.
- COLE, T. Steam Tramways, *etc.* *Tract.* 8vo. vol. 531. *Lond.* 1884. 8vo.
- Enemies to Timber in Marine Work, *etc.* *Tract.* 8vo. vol. *Lond.* 1880. 8vo.
- COLE, W. H. Notes on Permanent-Way Material, plate-laying, and points and crossings. *Lond.* 1890. 8vo.
- Notes on Plate-Laying, maintenance, curves, and points and crossings. *Lond.* 1885. 8vo.
- COLEMAN, J. J. On the methods in use for determining the value of Animal and Vegetable Oils. *Tract.* 8vo. vol. 253. *Glasgow*, 1874. 8vo.
(Read before the Chemical Section of the Philosophical Society of Glasgow.)
- COLENZO, *Rev.* J. W. The Elements of Algebra adapted for teachers and students in the university. *Lond.* 1849. 8vo.
- COLENZO, W. Essay on the Botany of the north island of New Zealand. *Dunedin*, 1865. 8vo.

COLEORTON RAILWAY. Coleorton Railway Bill.

Lond. 1883. folio.

COLERAINE. Minutes of Evidence . . . on the System of Navigation which connects Coleraine, Belfast and Limerick.

Dublin, 1882. folio.

COLES, C. P., Capt. Captain Coles and the Admiralty: with an enquiry into the origin and qualities of the Turret System of armour-clad War Vessels. By the Son of an Old Naval Officer. *Tract.* 8vo. vol. 214.

Lond. 1866. 8vo.

— Correspondence with the Admiralty on giving free publication to his views on Ironclads. *Tract.* 8vo. vol. 299.

Ventnor, 1866. 8vo.

— English v. American Cupolas: a comparison between Capt. Coles and Capt. Ericsson's turrets. *Tract.* 8vo. vol. 299.

Lond. 1864. 8vo.

— Evidence before, and letter to the Royal Defence Commission. *Tract.* 8vo. vol. 299.

Lond. 1862. 8vo.

— Letters . . . to the Admiralty on sea-going Turret Ships. *Tract.* 8vo. vol. 299.

Portsea, 1865. 8vo.

— Letters . . . and the opinion of the Press on Turrets. *Tract.* 8vo. vol. 299.

Lond. 1866. 8vo.

— Our National Defences. *Tract.* 8vo. vol. 132. *Lond.* 1861. 8vo.

— Spithead Forts: reply to the Royal Commissioners' second report on our national defences. With an appendix. *Tract.* 8vo. vol. 132.

Lond. 1861. 8vo.

— The Turret v. the Broadside system. *Tract.* 8vo. vol. 299.

Lond. 1867. 8vo.

COLIBAN, Victoria. Report on the Coliban and Geelong schemes for Water Supply.

Melbourne, 1871. folio.

— Schedule of Works of the Coliban Scheme showing cross sections and discharges on main channel from Malmesbury Reservoir to Crusoe.

Melbourne, 1889. folio.

— Report of Lieut.-Col. Sankey, R.E., on the Cost of completing the Coliban Waterworks.

Melbourne, 1871. folio.

COLIN, E. Notice sur l'éclairage aux huiles minérales.

Paris, 1870. 8vo.

COLLADON, D. Description de la terrasse d'alluvion sur laquelle est bâtie la ville de Genève. *Tract.* 8vo. vol. 233.

Genève, 1870. 8vo.

— Exécution des tunnels à ciel fermé par l'emploi de l'air comprimé, etc. *Tract.* 8vo. vol. 462.

Paris, 1887. 8vo.

— Expériences relatives à la production et à la transmission des sons dans l'eau, faites dans le lac de Genève. *Tract.* 8vo. vol. 53.

Genève, 1841. 8vo.

— Mémoire sur les effets de la foudre sur les arbres et les plantes ligneuses, etc. *Tract.* 4to. vol. 71.

Genève, 1872. 4to.

- COLLADON, D.—*continued*. Note sur l'emploi de la vapeur d'eau pour éteindre les incendies dans les usines et les bateaux à vapeur. *Tract. 8vo. vol. 53. Genève, 1840. 8vo.*
- Notes et documents sur la question Simplon ou Mont Blanc. *Genève, 1880. 8vo.*
- Résumé historique des études géologiques et des travaux d'excavation entrepris en France et en Angleterre, en vue de l'exécution d'un chemin de fer sous la Manche. *Tract. 8vo. vol. 462. Paris, 1883. 8vo.*
- Sur les dégâts causés par un coup de foudre d'une intensité exceptionnelle. *Tract. 4to. vol. 106. Paris, 1887. 4to.*
- Sur les origines du flux électrique des nuages orageux. *Tract. 4to. vol. 106. Paris, 1886. 4to.*
- Sur les tourbillons ascendants dans l'air et dans les liquides : réponse aux observations de M. Faye (séance du 14 Mars). *Tract. 4to. vol. 106. Paris, 1887. 4to.*
- Terrasses lacustres du lac Léman et constitution de la terrasse d'alluvion sur laquelle est construite la ville de Genève. *Tract. 8vo. vol. 332. Meulan, 1875. 8vo.*
- COLLADON, D., and STURM, C. Mémoire sur la compression des liquides et la vitesse du son dans l'eau. Sur la transmission des sons dans l'eau, par D. Colladon. *Tract. 4to. vol. 110. Genève, 1887. 4to.*
- COLLEGE OF PRECEPTORS. Calendar, 1887, (1888, etc.). *Lond. 1887, etc. 8vo.*
- COLLES, W. M. Literature and the Pension List, etc. *Lond. 1889. 8vo.*
- COLLET, C. D. Reasons for the repeal of the Railway Passenger Duty. *Tract. 8vo. vol. 435. Lond. 1877. 8vo.*
- COLLIER, E. H. Copy specification of improved patent Steam-Boilers. *Lond. 1837. 8vo.*
- COLLIER, P. Sorghum : its culture and manufacture, economically considered as a source of sugar, syrup and fodder. *Cincinnati, 1884. 8vo.*
- COLLIER, W. F. The Trade of Plymouth : a lecture, etc. *Tract. 8vo. vol. 344, [Plymouth,] 1878. 8vo.*
- COLLIGNON, C. Du concours des canaux et des chemins de fer et de l'achèvement du canal de la Marne au Rhin. *Tract. 8vo. vol. 300. Paris, 1845. 8vo.*
- COLLIGNON, E. L'Association Française en 1885–86. *Tract. 8vo. vol. 445. Paris, 1886. 8vo.*
- Un calendrier perpétuel. *Tract. 4to. vol. 113. Paris, [1890.] 4to.*
- Les chemins de fer russes de 1857 à 1862. 2^{me} édition. (Atlas of plates.) *Paris, 1858. 4to.*

- COLLIGNON, E.—*continued*. Cours de mécanique appliquée aux constructions. Première partie : Résistance des matériaux. Deuxième partie : Hydraulique. 2 vols. Paris, 1869–70. 8vo.
- 2^{me} édition. Paris, 1877–80. 8vo.
- 3^{me} édition. 1^{re} partie. Paris, 1885. 8vo.
- Examen de certaines séries numériques et application à la géométrie. *Tract.* 8vo. vol. 464. Paris, 1888. 8vo.
- Examen de certains cas-limites de la loi de l'attraction newtonienne. *Tract.* 8vo. vol. 445. Paris, 1886. 8vo.
- Examen d'un lieu géométrique. *Tract.* 8vo. vol. 518. Paris, 1890. 8vo.
- Exemples de l'application de la statique à la géométrie. *Tract.* 8vo. vol. 240. Paris, 1873. 8vo.
- Une méthode graphique de quadrature. *Tract.* 8vo. vol. 435. Paris, 1887. 8vo.
- Note sur la détermination des limites de l'effort tranchant dans les poutres droites. *Tract.* 8vo. vol. 476. Paris, 1889. 8vo.
- Note sur la détermination graphique des moments fléchissants dans les pièces chargées de poids discontinus. *Tract.* 8vo. vol. 408. Paris, 1885. 8vo.
- Note sur la flexion des pièces droites comprimées. *Tract.* 8vo. vol. 476. Paris, 1889. 8vo.
- Note sur la résistance des arcs paraboliques surbaissés. *Tract.* 8vo. vol. 491. Paris, 1890. 8vo.
- Notice sur la vie et les travaux de M. E. Phillips. *Tract.* 4to. vol. 113. Paris [1890?] 4to.
- Note sur le calcul des ponts métalliques. *Tract.* 8vo. vol. 462. Paris, 1888. 8vo.
- Note sur les courbes circulaires synchrones. *Tract.* 8vo. vol. 491. Paris, 1889. 8vo.
- Observations au sujet de la rencontre de deux points mobiles dans un plan. *Tract.* 8vo. vol. 491. Paris, 1889. 8vo.
- Problème de géométrie. *Tract.* 8vo. vol. 422. Paris, 1885–86. 8vo.
- Problème de mécanique. *Tract.* 8vo. vol. 457. Paris, 1887. 8vo.
- Problème de mécanique. *Tract.* 8vo. vol. 517. Paris, 1890. 8vo.
- Recherches sur la courbe d'ombre d'un piquet vertical. *Tract.* 8vo. vol. 464. Paris, 1888. 8vo.
- Une remarque sur la dynamique. *Tract.* 8vo. vol. 422. Paris, 1885. 8vo.
- Remarques sur le choc de deux corps élastiques [et] problèmes sur les corps flottants. (Association française pour l'avancement des sciences . . . Congrès de Pau, 1892.) *Tract.* 8vo. vol. 517. Paris [1893?] 8vo.

- COLLIGNON, E.—*continued*. Remarques sur le travail des moteurs employés aux transports. (Association française pour l'avancement des sciences. Congrès de Marseille, 1891.) *Tract.* 8vo. vol. 517. Paris, 1891. 8vo.
- La science et l'art de l'ingénieur. *Tract.* 8vo. vol. 522. Paris, 1892.
- Sur certaines séries de triangles et de quadrilatères. (Association française pour l'avancement des sciences. Congrès de Marseille, 1891.) *Tract.* 8vo. vol. 518. Paris, 1891. 8vo.
- Sur une méthode approximative pour la trisection de l'angle, imaginée par M. E. Fortin. *Tract.* 8vo. vol. 457. Paris, 1887. 8vo.
- Théorie des petites oscillations d'un point pesant sur une surface de révolution à axe vertical. *Tract.* folio. vol. 18. Paris, 1874. folio.
- Traité de mécanique. 4 vols. Paris, 1873-74. 8vo.
- See REYNAUD, L. Les travaux publics de la France. (tom. 2. Chemins de fer. Par E. Collignon.) 1838.
- COLLIN, A. Atmidométrie. Recherches expérimentales sur l'évaporation. *Tract.* 8vo. vol. 250. Orleans, 1866. 8vo.
- Les voies navigables de l'Empire français, de la Belgique et des provinces de la rive gauche de Rhin. Orleans, 1865. 8vo.
- Recherches expérimentales sur les glissements spontanés des terrains argileux, etc. (Atlas of plates.) Paris, 1846. 4to.
- COLLIN, A. Z. Engelsk-Svensk Ordbok. 1875. See NILSSON, L. G., WIDMARK, P. F., and COLLIN, A. Z.
- COLLINGS, G. Circular Work in Carpentry and Joinery. Lond. 1886. 8vo.
- COLLINGWOOD, C. On the opportunities of advancing Science enjoyed by the Mercantile Marine. *Tract.* 8vo. vol. 134. Liverpool, 1862. 8vo.
- COLLINGWOOD, F. Progress of work at the East River Bridge. *Tract.* 8vo. vol. 327. [New York, 1880.] 8vo.
- Report on the protection of the city of Elmira, N.Y., against Floods. *Tract.* 8vo. vol. 489. 1890. 8vo.
- COLLINGWOOD, F., MARTIN, C. C., and ABBOTT, A. V. Report of a scientific test of the Pontifex Refrigerating Machines. *Tract.* 8vo. vol. 446. 1887. 8vo.
- COLLINS, D. L. A few words on Portland Cement . . . 2nd edition. *Tract.* 8vo. vol. 477. Lond. 1888. 8vo.
- Six years' Experience of Chemical Analysis in relation to quality in the manufacture of Portland Cement. *Tract.* folio. vol. 42. [1880?] folio.
- COLLINS, Capt. G. Great Britain's Coasting Pilot, . . . being a new and exact survey of the sea-coast of . . . England and Scotland, etc. Lond. 1693. folio.

COLLINS, H. R. The Auriferous Conglomerate of the Transvaal and "How to mine it," etc. *Tract.* 8vo. vol. 457.

Johannesburg, 1888. 8vo.

COLLINS, J. Answer to Mr. Mansfield's letter to the Governor-General of India . . . on the Indus Valley Railway. *Tract.* folio. vol. 11.

Kurrachee, 1866. folio.

COLLINS, J. H. A handbook to the Mineralogy of Cornwall and Devon.

Truro, 1871. 8vo.

— Mineralogy, etc. *Lond. and Glasgow*, 1883. 8vo.

(Collins' Advanced Science Series.)

— On the Geology of the Rio Tinto Mines; with some general remarks on the Pyritic region of the Sierra Morena. *Tract.* 8vo. vol. 406.

Lond. 1885. 8vo.

COLLINS, L. Advertisers' Guardian, 1885. *Lond.* 1885. 8vo.

COLLINSON, J. Descriptive account of Captain Bedford Pim's project for an International Atlantic and Pacific Junction Railway across Nicaragua. Report and estimate of cost. *Tract.* 8vo. vols. 289, 439 and 440.

Lond. 1866. 8vo.

COLLINSON, Lieut.-Col. T. B. Lectures on the construction of Walls to resist Artillery. *Tract.* 8vo. vol. 243.

Chatham, 1864. 8vo.

COLLYER, G. C. Proposed works for the prevention of the inundation of the city of Rome by the overflow of the river Tiber, and for the improvement of the Roman Campagna. *Tract.* 8vo. vol. 412.

Rome, 1875. 8vo.

COLOGNE. Bericht über den Betrieb der Gaswerke der Stadt Köln für das Jahr 1875-76 (-77). *Tract.* 4to. vol. 80.

Köln, 1876-77. 4to.

— Bericht über den Betrieb der Stadt-Kölnischen Wasserwerke, 1875-77. *Tract.* 4to. vol. 80.

Köln, 1876-77. 4to.

COLOMB, P. H., and BRENT, H. W. The Law of Port Helm: an examination into its history and dangerous action, etc.

Lond. 1866. 8vo.

COLOMBAT, —. Navire insubmersible. 1874. See CROUZET, J. B., and COLOMBAT, —.

COLOMBO, G. Le gallerie delle macchine del lavoro e del materiale ferroviario all' Esposizione Nazionale di Milano, 1881. Colla collaborazione dei Signori Saldini, G. Ponzio, E. Carmagnola.

Milano, 1882. folio.

— Manuel de l'ingénieur. [Translated by Marcellac.]

Milan, 1888. 8vo.

COLOMBO. See INDIA.—COLOMBO.

COLONIAL AND INDIAN EXHIBITION. See LONDON.—EXHIBITIONS.

COLONIAL INSTITUTE. See ROYAL COLONIAL INSTITUTE.

COLORADO. Biennial Report of the Board of Capitol Managers, etc.

Denver, 1886-88. 8vo.

- COLORADO—*continued*. Biennial Report of the State Inspector of Coal Mines for 1885-88. *Denver*, 1887-88. 8vo.
- Report of the State Engineer, 1883-84, [1889-90. 4 vols. *Denver*, 1885-90. 8vo.
- *Agricultural College*. Fourth Annual Register, 1881-83. *Tract*. 8vo. vol. 398. [*Fort Collins*, 1883.] 8vo.
- COLORADO, *River*. Report on the Colorado River, explored in 1857-58 (and 1869-72), *etc.* *Washington*, 1861-75. 4to.
- COLQUHOUN, A. R. Across Chrysé; being the narrative of a journey of exploration through the South China border lands, from Canton to Mandalay. 2 vols. *Lond.* 1883. 8vo.
- The prospects of trade extension between Burmah, the Shan country, and S. W. China. *Tract*. 4to. vol. 92. *Lond.* 1882. 4to.
- COLQUHOUN, A. R., and HALLETT, H. S. Report on the Railway connection of Burmah and China. *Lond.* 1887. folio.
- COLQUHOUN, W. Blast furnace practice; in the United States. *Tract*. 8vo. vol. 530. [1891.] 8vo.
- Notes on the Iron and Steel Industries of the United States, *etc.* *Lond.* [1892.] 8vo.
(From Journal of Iron and Steel Institute—Special Volume.)
- COLSON, C., et ROUME, E. L'organisation financière des ports maritimes de commerce en Angleterre. *Paris*, 1888. 8vo.
- COLSON, R. L'énergie et ses transformations. *Paris*, 1889. 8vo.
- COLT, S., *Colonel*. Armsman: the home, the arm, and the armory of S. Colt. A memorial. *New York*, 1866. 4to.
- On the application of Machinery to the manufacture of rotating chambered-breech Fire Arms, and their peculiarities. *Tract*. 8vo. vol. 131. (From the Min. Proc. Inst. C. E.) *Lond.* 1854. 8vo.
- [Another edition.] *Tract*. 8vo. vol. 502. *Lond.* 1855. 8vo.
- De l'application des machines à la fabrication des armes à feu à culasse tournante et à leurs systèmes particuliers. *Tract*. 8vo. vol. 120. *Bruzelles*, 1854. 8vo.
- Patents for Repeating Firearms previous to 1851. *Washington*, [1852?] 4to.
- Reports on the repeating pistols invented by Col. Colt and other inventors. *Tract*. 8vo. vol. 120. 1851. 8vo.
- COLTHURST, J. Dwellings for the poor. *Tract*. 8vo. vol. 137. *Lond.* 1863. 8vo.
- Experiments in a running stream on the Resistance of Floating Bodies. *Tract*. 8vo. vol. 314. *Cork*, 1863. 8vo.
- COLUMBIA. Report upon the Sewerage of the District of Columbia. By W. Hering [and others]. *Washington*, 1890. 8vo.
- COLUMBIA COLLEGE. — *School of Mines*. School of Mines Quarterly. Vol. 1, (2, *etc.*). *New York*, 1879, *etc.* 8vo.

- COLWELL, C. Live and learn : or, . . . how to prevent Fogs in London ; also . . . how to prevent Colliery Explosions, *etc.* *Tract.* 8vo. vol. 525. *Great Yarmouth*, 1892. 8vo.
- The Miner's Friend ; or, an effectual remedy for Colliery Explosions. *Tract.* 8vo. vol. 284. *London*. 1861. 8vo.
- COLWILL QUARRY. Nitro-glycerine explosion at the Colwill Quarry. Report by Major J. P. Cundill. *London*. 1890. folio.
- COLYER, F. Gas works ; their arrangement, construction, *etc.* *London*. 1884. 8vo.
- Hydraulic, steam and hand-power lifting and pressing Machinery. *London*. 1884. 8vo.
- — 2nd edition. *London*. 1892. 8vo.
- Public Institutions ; their engineering, sanitary and other appliances. *London*. 1889. 8vo.
- Pumps and pumping machinery. 2 vols. *London*. 1882. 8vo.
- — 2nd edition, revised, enlarged, *etc.* Part I. *London*. 1892. 8vo.
- A treatise on modern Steam Engines and Boilers. *London*. 1886. 4to.
- Treatise on the working and management of Steam Boilers and Engines. *London*. 1885. 8vo.
- Treatise on Water Supply, drainage, and sanitary appliances of Residences, *etc.* *London*. 1889. 8vo.
- COMBES, C. Recherches théoriques et expérimentales sur les roues à réaction ou à tuyaux. *Tract.* 4to. vol. 32. *Paris*, 1843. 4to.
- Rapport sur le frein automateur de M. Guérin. 1857. 8vo. See PROBERT, G., COMBES, C., and COUCHE, C.
- Traité de l'exploitation des mines. (Atlas of plates.) 4 vols. *Paris*, 1844-5. 8vo. and 4to.
- COMELATI, G., and DAVENPORT, J. A new Dictionary of the English and Italian Languages : based upon that of Baretti, *etc.* 2 vol. *London*. 1873. 8vo.
- COMITÉ DES FORGES DE FRANCE. Bulletin, *etc.* *Paris*, 1865, *etc.* 4to.
- L'industrie sidérurgique à l'Exposition Universelle de 1889. *Paris*, 1889. 8vo.
- COMITÉ INTERNATIONAL DES POIDS ET MESURES. Travaux et Mémoires du Bureau International. Vol. 1, (2, *etc.*) *Paris*, 1881, *etc.* folio.
- COMMERCIAL DOCKS, *London*. Report of the capabilities of the Commercial and East India Dock roads, with reference to the projected railways to the East and West India docks and Blackwall. *Tract.* 8vo. vol. 228. *London*. 1835. 8vo.
- COMMERCIAL RAILWAY. Observations upon the proposed extension of the Commercial Railway from the Minorities to Leadenhall Street. By a Citizen. *Tract.* 8vo. vol. 260. *London*. 1837. 8vo.

COMMERCIAL ROAD, *London*. [A collection of Acts relating to this Road, and streets connected with it.]

Lond. 1802–55. folio.

COMMISSION INTERNATIONALE pour la Statistique des Chemins de Fer. Statistique des chemins de fer de l'Europe pour l'année 1882.

Vienna, 1885. 8vo.

COMMISSIONERS OF PATENTS.

Abridgments of Specifications of Patents.

- Acids, alkalies and oxides, 1622–1866. *Lond.* 1869. 12mo.
- Aeronautics, 1815–66. *Lond.* 1869. 12mo.
- Agriculture. Division I. Field implements, 1618–1876. 2 pt.
Lond. 1876–78. 12mo.
- — Division II. Barn and farmyard instruments. Pt. I.
1636–1876. 2 pt. *Lond.* 1879. 12mo.
- — Division III. Agricultural and traction-engines, 1618–
1866. *Lond.* 1884. 12mo.
- Anchors, 1796–1866. *Lond.* 1874. 12mo.
- Artificial leather. Floorcloth, oilcloth, oilskin and other water-
proof fabrics, 1627–1876. 2 pt. *Lond.* 1876–84. 12mo.
- Artists' instruments and materials, 1618–1866.
Lond. 1872. 12mo.
- Bleaching, dyeing, and printing calico and other fabrics and
yarns; including the manufacture of rollers, engraving, the pre-
paration of drugs and other processes, 1617–1876. 3 pt.
Lond. 1859–78. 12mo.
- Books, portfolios, card-cases, etc., 1768–1866. *Lond.* 1870. 12mo.
- Brewing, wine-making, and distilling alcoholic liquids, 1634–
1866. *Lond.* 1881. 8vo.
- Bricks and tiles, 1619–1866. 2 pt. *Lond.* 1862–71. 12mo.
- Bridges, viaducts, and aqueducts, 1750–1866. *Lond.* 1868. 12mo.
- Brushing and sweeping, 1699–1866. *Lond.* 1872. 12mo.
- Carriages and other vehicles for common roads, 1625–1866.
Lond. 1880. 8vo.
- Casks and barrels, 1797–1866. *Lond.* 1875. 12mo.
- Chains, chain cables, etc., 1634–1876. *Lond.* 1877–78. 12mo.
- Cooking, bread-making, and the preparation of confectionery,
1634–1876. 2 pt. *Lond.* 1873–82. 12mo.
- Cork, preparing and cutting, bottling liquids, securing and open-
ing bottles, etc., 1777–1883. 3 pt. *Lond.* 1872–85. 12mo.
- Drain tiles and pipes, 1619–1855. *Lond.* 1857. 12mo.
- Drains and sewers, including the manufacture of drain tiles and
pipes, 1619–1876. 2 pt. *Lond.* 1874, 1885. 12mo.

COMMISSIONERS OF PATENTS. Abridgments of Specifications of Patents—*continued*.

- Dressing and finishing woven fabrics and manufacturing felted fabrics, 1620–1876. 3 pt. Lond. 1878–80. 12mo.
- Electricity and magnetism, 1766–1866. 2 pt. Lond. 1859–70. 12mo.
- Engines, air, gas, and other motive power, 1635–1876. 2 pt. Lond. 1873–81. 12mo.
- Farriery, 1719–1876. 2 pt. Lond. 1872–80. 12mo.
- Fire engines, extinguishers, escapes, alarms, *etc.*, 1625–1866. Lond. 1877. 12mo.
- Firearms and other weapons, ammunition, and accoutrements, 1588–1866. 2 pt. in 1. Lond. 1859–70. 12mo.
- Firearms, ammunition, *etc.* Firearms and similar weapons. Cartridges, projectiles, and explosives, 1867–83. 4 vols. Lond. 1883–86. 12mo.
- Food, preservation of, 1691–1866. 2 pt. in 1. Lond. 1857–1870. 12mo.
- Fuel, preparation and combustion of, 1620–1865. Lond. 1867. 12mo.
- Furniture and upholstery, 1620–1866. Lond. 1869. 12mo.
- Gas, productions and applications of (excepting gas engines), 1681–1866. 2 pt. Lond. 1860–71. 12mo.
- — Part II., 1859–66. 2nd edition. Lond. 1875. 12mo.
- Grinding grain and dressing flour and meal, 1623–1866. Lond. 1876. 12mo.
- Harbours, docks, canals, *etc.*, 1617–1866. Lond. 1876. 12mo.
- Hinges, hinge-joints, and door-springs, 1775–1866. Lond. 1873. 12mo.
- Hydraulics, 1617–1865. Lond. 1868. 12mo.
- — 2nd edition. Lond. 1874. 12mo.
- Ice-making machines, ice-safes, and ice-houses, 1819–76. 2 pt. Lond. 1877–82. 12mo.
- India-rubber (caoutchouc) and gutta percha: including air, fire, and water proofing, 1627–1857. Lond. 1859. 12mo.
- India-rubber and gutta percha, preparation of, 1791–1866. 2nd edition. 2 pt. Lond. 1875–84. 12mo.
- Instruments, optical, mathematical, *etc.*, 1636–1866. Lond. 1875. 12mo.
- Iron and steel, manufacture of, 1621–1857. 3 pt. Lond. 1857–58. 12mo.
- — Part II., 1867–76. Lond. 1880. 12mo.
- Lace and other looped and netted fabrics, 1675–1864. Lond. 1866. 12mo.

COMMISSIONERS OF PATENTS. Abridgments of Specifications of Patents—*continued.*

- Lace-making, knitting, netting, braiding, and plaiting, including also the manufacture of fringe and chenille, 1675–1866. 2nd edition. *Lond.* 1879. 12mo.
- Lamps, candlesticks, chandeliers, and other illuminating apparatus, 1637–1866. *Lond.* 1871. 12mo.
- Letterpress and similar printing, 1858–76. 2 pt. 2nd edition. *Lond.* 1878–80. 12mo.
- Locks, latches, bolts, and similar fastenings, 1774–1866. *Lond.* 1873. 12mo.
- Locomotion, aids to, 1691–1856. *Lond.* 1858. 12mo.
- Manure, 1721–1866. 2 pt. *Lond.* 1857. 12mo.
- Marine propulsion (excluding sails). Pt. I–IV. 1618–1866. *Lond.* 1857–72. 12mo.
- — Pt. II., 1867–76. *Lond.* 1883. 12mo.
- Masts, sails, rigging, *etc.*, including apparatus for raising and lowering ships' boats, 1625–1866. *Lond.* 1874. 12mo.
- Medicine, surgery, and dentistry; including artificial limbs, teeth, *etc.*, apparatus for invalids, medical baths, *etc.*, 1620–1866. 2nd edition. *Lond.* 1872. 12mo.
- Metals. Plating or coating with metals, 1637–1866. 2 pt. (Pt. 2. 2nd edition.) *Lond.* 1862–72. 12mo.
- Metals and alloys (excepting iron and steel), 1623–1876. 3 pt. *Lond.* 1861–86. 12mo.
- Milking, churning, and cheese-making, 1777–1866. 2 pt. *Lond.* 1874–83. 12mo.
- Mining, quarrying, tunnelling, and well-sinking, 1618–1866. *Lond.* 1874. 12mo.
- Music and musical instruments, 1694–1876. 2 pt. *Lond.* 1864–81. 12mo.
- Nails, rivets, bolts, screws, nuts, and washers, 1618–1866. *Lond.* 1873. 12mo.
- Needles and pins, 1755–1866. *Lond.* 1871. 12mo.
- Oils, fats, lubricants, candles, and soap, 1617–1866. 2nd edition. *Lond.* 1873. 12mo.
- Paints, colours, and varnishes, 1618–1866. *Lond.* 1871. 12mo.
- Paper: cutting, folding, and ornamenting, 1636–1876. 2 pt. *Lond.* 1881. 8vo.
- Paper, pasteboard, and papier mâché, 1665–1866. 3 pt. *Lond.* 1858–76. 12mo.
- Photography, 1839–83. 4 vols. *Lond.* 1861–85. 12mo.
- Pipes and tubes, metallic, 1741–1876. 2 pt. *Lond.* 1874–81. 12mo.
- Pottery, 1626–1866. 2 pt. *Lond.* 1863–70. 12mo.

COMMISSIONERS OF PATENTS. Abridgments of Specifications of Patents—*continued*.

- Printing: including therein the production of copies on all kinds of materials (excepting felted and textile fabrics), by means of types, stereotype blocks, plates, stones, dies, stencil plates, paper writings, electro-chemicals, and light, 1533–1866. 2 pt.
Lond. 1859–78. 12mo.
- Purifying and filtering water, 1675–1876. 2 pt.
Lond. 1876–79. 12mo.
- Railway Carriages and other vehicles for railways, 1807–66.
Lond. 1871. 12mo.
- Railway signals and communicating apparatus, 1840–66.
Lond. 1869. 12mo.
- Railways, 1803–76. 2 pt. *Lond.* 1873–84. 12mo.
- Raising, lowering and weighing, 1617–1866. 2 pt. (Pt. 2, 2nd edition.) *Lond.* 1867–72. 12mo.
- Roads and ways, 1619–1866. *Lond.* 1868. 12mo.
- Saddlery, harness, stable fittings, 1625–1876. 2 pt.
Lond. 1868–83. 12mo.
- Safes, strong rooms, tills and similar depositories, 1801–66.
Lond. 1873. 12mo.
- Sewing and embroidery, 1755–1866. 2 pt.
Lond. 1857–71. 12mo.
- Ship building, repairing, sheathing, launching, 1618–1866. 2 vols. *Lond.* 1862–69. 12mo.
- Skins, hides and leather, 1627–1866. *Lond.* 1872. 12mo.
- Spinning, including those relating to the preparation of fibrous materials, and the doubling of yarns and threads, 1864–66. Pt. II. *Lond.* 1868. 12mo.
- Starch, gum, size, glue, and other stiffening and adhesive materials, 1717–1876. 2 pt. *Lond.* 1884. 12mo.
- Steam Culture, 1618–1856. *Lond.* 1858. 12mo.
- Steam Engine, 1618–1866. 4 vols. *Lond.* 1871. 12mo.
- Steering and manœuvring vessels, 1763–1866.
Lond. 1875. 12mo.
- Sugar, 1663–1866. *Lond.* 1871. 12mo.
- Tea, coffee, chicory, chocolate, cocoa, *etc.*, 1704–1876. 2 pt.
Lond. 1877–83. 12mo.
- Tobacco; preparation and use, 1721–1866. *Lond.* 1870. 12mo.
- Toys, games, and exercises, 1672–1866. *Lond.* 1871. 12mo.
- Trunks, portmanteaus, boxes, and bags, 1635–1866.
Lond. 1876. 12mo.
- Umbrellas, parasols, and walking sticks, 1780–1876. 2 pt.
Lond. 1871–80. 12mo.
- Unfermented beverages, aerated liquids, mineral waters, 1774–1876. 2 pt. *Lond.* 1877–83. 12mo.

COMMISSIONERS OF PATENTS. Abridgments of Specifications of Patents—*continued*.

- Ventilation, 1632–1866. *Lond.* 1872. 12mo.
- Washing and wringing machines, 1691–1876. 2 pt.
Lond. 1872–78. 12mo.
- Watches, clocks, and other timekeepers, 1661–1876. 3 pt.
Lond. 1858–83. 12mo.
- Water-closets, earth-closets, urinals, *etc.*, 1775–1866.
Lond. 1873. 12mo.
- Wearing apparel. Division 1. Head coverings, 1637–1866.
Division 2. Body coverings, 1671–1866. Division 3. Foot cover-
ings, 1693–1866. Division 4. Dress fastenings and jewellery,
1631–1866. 4 vols. *Lond.* 1874–76. 12mo.
- Weaving, 1620–1876. 3 pt. *Lond.* 1861–83. 12mo.
- Writing instruments and materials, 1635–1876.
Lond. 1869–82. 12mo.
- [A New Series of Abridgments, covering the period, 1877–83, is
now in progress.]
- Abstract of replies to the Secretary of State's Circular Despatch
of July 11, 1856, on the subject of the Extension of Patents
for Inventions to the Colonies. *Lond.* 1861. 8vo.
- Alphabetical Index (Name Index) of Patentees and Applicants
for Patents, 1852–74, (1880, *etc.*). *Lond.* 1857, *etc.* 8vo.
- Alphabetical Index of Patentees of Inventions, from March 2,
1617, to October 1, 1852. *Lond.* 1854. 8vo.
- Appendix to the Specifications of English Patents for Reaping
Machines: by B. Woodcroft. *Lond.* 1853. 8vo.
- Catalogue of Portraits of Inventors, Discoverers and Introducers
of useful arts. 5th edition. *Lond.* 1859. 12mo.
- Catalogue of the Library of the Great Seal Patent Office. 2
vols. in 3. *Lond.* 1857–58. 8vo.
- Catalogue of the Library of the Patent Office. 2 vols.
Lond. 1881–83. 8vo.
- Chronological and Descriptive Index of Patents applied for and
Patents granted, 1867–75. With indexes of names and subjects.
9 vols. *Lond.* 1868–76. 8vo.
- Chronological Index of Patents applied for and Patents granted
from October, 1852, to December, 1853: by B. Woodcroft.
Lond. 1860. 8vo.
- ——— 1854–1868. 15 vols. *Lond.* 1855–69. 8vo.
- [Circular relating to the mode of proceeding to obtain Patents
for Inventions in the United Kingdom.] *Tract.* 4to. vol. 121.
Lond. 1886. 4to.
- [A Collection of Specifications of Patents, chiefly relating to
machines for digging and cultivation of soil.]
Lond. 1770–1858. 8vo.

COMMISSIONERS OF PATENTS—*continued.*

- Illustrated Journal of the Patent Office. *Lond.* 1854, *etc.* 8vo.
 - Index to foreign Scientific Periodicals in the Patent Office Library. 4 vols. *Lond.* 1867–70. 8vo.
 - List [with prices] of Printed Specifications enrolled under the old law (and under the new law from 1852–63). *Lond.* [1864 ?] 8vo.
 - The Patent Office Museum. [A Letter to the *Times*.] *Tract.* 8vo. vol. 254. [Lond. 1875.] 8vo.
 - The Patent Law Amendment Acts (15 & 16 Vict. cap. 83, 16 Vict. cap. 5, and 16 & 17 Vict. cap. 115), together with the rules and regulations issued by the Commissioners of Patents for Inventions, *etc.* *Lond.* 1852. folio.
 - Patent Office Receipts for the year 1881–82. *Lond.* 1882. folio.
 - Reference Index of Patents of Invention, March 2, 1617, to October 1, 1852: by B. Woodcroft. 2nd edition. (Appendix.) 2 vols. *Lond.* 1855–62. 8vo.
 - Reference Index of subjects named in Schubarth's "Repertorium der technischen Literatur" . . . By B. Woodcroft. *Lond.* 1856. 8vo.
 - Report from the Select Committee on the Library and Museum; with the proceedings of the Committee, minutes of evidence, Appendix, and Index. *July* 19, 1864.
 - Report of the Commissioners on the subject of building a Patent Office, Library and Museum. *Lond.* 1862. folio.
 - Subject-matter Index, made from titles only, of Patents of Invention, from March 2, 1617, to October 1, 1852: by B. Woodcroft. 2 vols. *Lond.* 1857. 8vo.
 - Subject-matter Index of accepted complete Specifications of Inventions, dated 1884. *Lond.* 1887. 8vo.
 - Subject-matter Index of Patents applied for and Patents granted from 1852 to 1870, (1872, 1874, *etc.*). *Lond.* 1861, *etc.* 8vo.
 - Supplement to the Series of Letters Patent and Specifications recorded in the Great Seal Patent Office, 1617–1852: consisting for the most part of reprints of scarce pamphlets, descriptive of early patented inventions comprised in that series. Edited by B. Woodcroft. Vol. 1. *Lond.* 1858. 8vo.
 - Titles of Patents of Invention, chronologically arranged from March 2, 1617, to October 1, 1852. By B. Woodcroft. *Lond.* 1854. 8vo.
- COMMONS, *House of.* Catalogue of books in the Library. *Lond.* 1830. folio.
- Report from the Select Committee [appointed to consider alterations in the arrangements of the House of Commons]. *Lond.* 1868. folio.
 - Report from the Select Committee on the House of Commons Buildings. *Lond.* 1833. folio.

- COMMONS, *House of—continued*. Sketches (personal and political) in the House of Commons. By the Silent Member. 2 vols. Lond. 1871. 8vo.
- COMOLLI, L. A. Les ponts de l'Amérique du nord. Étude, calcul, description de ces ponts. Comparaison des systèmes américain et européen. Paris, 1879. 4to.
- [2nd edition.] Paris, 1883. 4to.
- COMOY, G. E. Considérations sur l'endiguement des rivières. *Tract*. 4to. vol. 78. Paris, 1861. 4to.
- De la question des inondations et de la défense des plaines submersibles. *Tract*. 4to. vol. 78. Paris, 1861. 4to.
- Étude pratique sur les marées fluviales et notamment sur le Mascaret. Paris, 1881. 8vo.
- Études sur les inondations de la Loire. Paris, 1861. 4to.
- Mémoires sur les ouvrages de défense contre les inondations, 2^{me} édition. Paris, 1868. 8vo.
- Observations sur l'emploi des digues submersibles. *Tract*. 8vo. vol. 78. Paris, 1861. 8vo.
- COMPAGNIE CONTINENTALE de l'exploitation des locomotives sans foyer. De la valeur théorique et pratique des moteurs à air comprimé. *Tract*. 8vo. vol. . Paris, 1886. 8vo.
- COMPAGNIE DES CHEMINS DE FER DE LA SUISSE OCCIDENTALE. (1) Chariot de transbordement à niveau. Plan et coupes. (2) Gare de triage de Renens. Plan d'ensemble. *Tract*. folio. vol. Lausanne, 1879. folio.
- COMPAGNIE PIO LATINA. Notice sur le wagon d'honneur offert par la Compagnie à sa Sainteté le Pape Pie IX. *Tract*. 4to. vol. 61. Paris, 1858. 4to.
- COMPAGNIE POUR LA FABRICATION DES COMPTEURS ET MATÉRIEL D'USINES. Compteurs d'électricité systèmes Frager et Cauderay-Frager. *Tract*. 4to. vol. Paris []. 4to.
- COMPANHIA ESTRADA DE FERRO DO CORCOVADO. Relatoria da directoria. 1884. *Tract*. 8vo. vol. 404. Rio de Janeiro, 1885. 8vo.
- COMPANHIA ESTRADO DE FERRO DO SAPUCAHY. Relatorio da 1889. Rio de Janeiro, 1889. 8vo.
- COMPANHIA ESTRADA DE FERRO MACAHÉ E CAMPOS. Actos officiaes, contratos e outros documentos. Rio de Janeiro, 1886. 8vo.
- Exposição apresentada pela directoria. Rio de Janeiro, 1887. 8vo.
- Relatorio da directoria. *Tract*. 8vo. vol. 404. Rio de Janeiro, 1885-86. 8vo.
- COMPañÍA DE LOS CAMINOS DE HIERRO DEL NORTE DE ESPAÑA. Memoria del consejo de administración. *Tract*. 4to. vol. 107. Madrid, 1887. 4to.

- COMPañÍA DE LOS FERROCARRILES ANDALUCES. Memoria presentada por el consejo de administración. *Tract. 4to. vol. 107. Madrid, 1887. 4to.*
- COMPañÍA DE LOS FERRO-CARRILES DE MADRID A ZARAGOZA y à Alicante. Memoria presentada por el consejo de administración. *Tract. 4to. vol. 107. Madrid, 1887. 4to.*
- COMPANY OF CLOCKMAKERS. *See CLOCKMAKERS' COMPANY.*
- COMPORTEY, F. La compagnie des hauts fourneaux, forges, et aciéries de la marine et des chemins de fer (Saint Chamond). *Tract. 4to. vol. 112. Paris, 1889. 4to.*
- COMSTOCK, C. B. Notes sur l'amélioration du Mississippi. [5th Int. Congr. Int. Nav.] [*Paris, 1892.*] 8vo.
- Report upon the primary triangulation of the United States Lake Survey. *Washington, 1882. 4to.*
(No. 24 Professional Papers, Corps of Engineers, U.S.A.)
- CONCEPCIÓN. Proyecto de desagües de la ciudad de Concepción, etc. *Tract. 8vo. vol. 511. Concepcion, 1892. 8vo.*
- CONDER, F. R. Inland Transport and the Manchester Ship Canal. *Tract. 8vo. vol. 430. Paisley, 1886. 8vo.*
- London Water Supply. Report to the shareholders of the London Water Companies on the Metropolis Water Bill. *Tract. 8vo. vol. 359. Lond. 1884. 8vo.*
- Railway Transit; a letter to H. Labouchere. *Tract. 8vo. vol. 79. Lond. 1841. 8vo.*
- Report of the comparative cost of Transport by Railway and by Canal. *Tract. 8vo. vol. 350. Lond. 1882. 8vo.*
- The actual and the possible cost of Conveyance between Manchester and Liverpool. *Tract. 8vo. vol. 350. Lond. 1882. 8vo.*
- The Geognostic Pendulum; or, an inquiry into the theory of the pendulum experiment. *Tract. 8vo. vol. 188. Lond. 1851. 8vo.*
- The Iron Process for . . . dealing with sewage. *Tract. 8vo. vol. 438. Guildford, 1886. 8vo.*
- The Iron Process. Treatment of sewage at Chichester Barracks. *Tract. 8vo. vol. 438. Guildford [1887]. 8vo.*
- The Money Cost of the Mineral Traffic on Railways. *Tract. 8vo. vol. 279. 1877. 8vo.*
- The Sewage Problem. *Tract. 8vo. vol. 407. Manchester, 1885. 8vo.*
- Treatment of Sewage by the Iron Process. *Tract. 8vo. vol. 469. Chatham, 1888. 8vo.*
- CONDILLAC, É. B. DE. La langue des calculs. *Paris, 1797. 8vo.*
- CONDY, H. B. On the Purification of Water and Air, and the use of the Alkaline Permanganates as purifying agents. *Tract. 8vo. vol. 182. Lond. 1862. 8vo.*
- CONE, A. and JOHNS, W. R. Petrolia: a brief history of the Pennsylvania petroleum region. *New York, 1870. 8vo.*

- CONEY, J. A series of fifty-six etchings, consisting of Architectural Sketches in France, the Netherlands, Germany, and Italy. *Tract.* 4to. vol. 59. *London*. [1860 ?] 4to.
- CONEYS, J. Shanagolden District, County Limerick. Supplemental report to the commissioners on drainage and improvement. *Dublin*, 1849. 8vo.
- CONFERENZ ZUR VEREINBARUNG einheitlicher Prüfungsmethoden für Bau- und Constructions-Materialien. (III.) Protokolle. *Tract.* 4to. vol. 114. [*Berlin*,] 1890. 4to.
- Protokoll des 2^{ten} und 3^{ten} Sitzungstages. *Tract.* 8vo. vol. 472. *Munich*, 1884. 8vo.
- CONGER, N. B. Report on the Forecasting of Thunderstorms during the summer of 1892. [*U.S. Dep. of Agriculture*, Weather Bulletin, 9.] *Washington*, 1893. 8vo.
- CONGRÈS INTERNATIONAL DE NAVIGATION INTÉRIEURE. *See* INTERNATIONAL CONGRESS ON INLAND NAVIGATION.
- CONGRÈS INTERNATIONAL DES ÉLECTRICIENS. *See* INTERNATIONAL CONGRESS OF ELECTRICIANS.
- CONGRÈS INTERNATIONAL D'ÉTUDES DU CANAL INTER-Océanique. *See* INTEROCEANIC CANAL CONGRESS.
- CONGRÈS GÉOLOGIQUE INTERNATIONAL. *See* INTERNATIONAL GEOLOGICAL CONGRESS.
- CONGRÈS INTERNATIONAL DES CHEMINS DE FER. *See* INTERNATIONAL RAILWAY CONGRESS.
- CONGRÈS INTERNATIONAL D'HYGIÈNE ET DE DÉMOGRAPHIE. *See* INTERNATIONAL CONGRESS ON HYGIENE AND DEMOGRAPHY.
- CONGRÈS INTERNATIONAL DES INGÉNIEURS ET DES ARCHITECTES. *See* INTERNATIONAL CONGRESS OF ENGINEERS AND ARCHITECTS.
- CONGRÈS INTERNATIONAL DE MÉCANIQUE APPLIQUÉE. *See* INTERNATIONAL CONGRESS ON APPLIED MECHANICS.
- CONGRÈS SUISSE DE LA PROPRIÉTÉ INDUSTRIELLE TENU À ZURICH. Procès verbal. *Tract.* 8vo. vol. 472. *Zurich*, 1883. 8vo.
- CONGRESO INTERNACIONAL DE INGENIERÍA. *See* INTERNATIONAL CONGRESS ON ENGINEERING.
- CONGRESS, Library of. *See* UNITED STATES.—*Congress*.
- CONGRESSO DEGLI INGEGNERI E DEGLI ARCHITETTI ITALIANI. Commissione Esecutiva del Congresso . . . in Torino. Quesiti da discutersi. *Tract.* 4to. vol. 111. *Torino*, 1884. 4to.
- Atti del Quinto Congresso, etc. *Torino*, 1885. 8vo.
- CONGRESSO INTERNAZIONALE DI NAVIGAZIONE INTERNA. *See* INTERNATIONAL CONGRESS ON INLAND NAVIGATION.
- CONGREVE, Sir W., Bart. A short account of a new Patent for a new principle of Steam Engine. *Tract.* 8vo. vol. 220. *London*. 1819. 8vo.

- CONGREVE, *Sir W., Bart.—continued.* A treatise on the general principles . . . of the Congreve Rocket system, as compared with artillery. *Lond.* 1827. 4to.
- Description of the construction, properties, and varieties of the Hydro-Pneumatic Lock; with introductory observations on locks in general. *Lond.* 1814. 4to.
- CONNAUGHT. Report from the Select Committee on Connaught Lakes. *Lond.* 1835. folio.
- CONNELL, A. K. The economic revolution of India and the Public Works policy. *Lond.* 1883. 8vo.
- CONNELL, J. The elements of the Differential and Integral Calculus. *Lond.* 1844. 8vo.
- CONNOLLY, T. W. J. History of the Royal Sappers and Miners, 1772–1856. 2 vols. *Lond.* 1857. 8vo.
- CONNOR, E. J. Table of Logarithmic Sines and Cosines. *Tract.* 8vo. vol. 331. *Bombay*, [1880.] 8vo.
- Table of Products, Quotients, squares and roots. *Tract.* 4to. vol. 88. [*Bombay*, 1881.] 4to.
- CONRAD, F. Canal imperial marítimo, ó de union del mar Cantábrico con el Mediterraneo. *Tract.* 4to. vol. 34. *Madrid*, 1834. 4to.
- CONRAD, F. W. Account of the Amsterdam and Rotterdam Railway. Translated from the French by C. Manby. *Tract.* 8vo. vol. 500. (From Min. Proc. Inst. C.E.) *Lond.* 1844. 8vo.
- Beweegbare bruggen in den Hollandschen spoorweg. *Tract.* 8vo. vol. 89. [1848?] 8vo.
- Considérations sur les rapports des ingénieurs étrangers chargés d'examiner les questions qui se rattachent au barrage de l'Escaut oriental, etc. *Tract.* folio. vol. 11. 1867. folio.
- Description d'un chemin de fer provisoire de cinq courbes à petit rayon près de Delft. *Tract.* 8vo. vol. 89. *La Haye*, 1847. 8vo.
- Memorie over het al of niet voordeelige voor Delfland van eene uitwatering in de Noord-Zee, te Scheveningen. *Tract.* 8vo. vol. 89. 's Gravenhage, 1847. 8vo.
- Over de verzinkingen van het westerhoofd der nieuwe ijdijken te Amsterdam. *Tract.* 8vo. vol. 125. *Amsterdam*, 1860. 8vo.
- Over het afzagen van palen en het maken van pennen aan dezelve onder water. *Tract.* 8vo. vol. 89. [1845?] 8vo.
- Prijsverhandeling, betreffende het leven en de verdiensten van Christian Brunings. 's Gravenhage, 1827. 4to.
- Rapport omtrent de onteigeningen ten behoeve der IV^e sectie van den Hollandschen spoorweg, zijnde het gedeelte tusschen 's Gravenhage en Rotterdam. *Tract.* 8vo. vol. 89. 's Gravenhage, 1847. 8vo.
- Reizen naar de landengte van Suez, Egypte, het Heilige Land. 's Gravenhage, 1859. 8vo.

- CONRAD, F. W.—*continued*. Stoomwerktuig voor de bemaling van de polders Cool, Schoonderloo en Beukelsdijk, opgericht door de Hollandsche Ijzeren Spoorweg-Maatschappij aan het station Rotterdam. *Tract. 8vo. vol. 89.* [1847.] 8vo.
- Verslag omtrent den ijzeren spoorweg van Amsterdam naar Rotterdam. *Tract. 8vo. vol. 89.* 's Gravenhage, 1848. 8vo.
- CONRAD, F. W., STORM BUIJSING, D. J., and BEIJERINCK, J. A. Memorie en beschrijvende begrooting betreffende den aanleg van eene haven te Scheveningen. *Tract. 8vo. vol. 173.* 's Gravenhage, 1858. 8vo.
- CONRADI, J. F. Description of Petroleum Engine, with Tests. *Tract. 8vo. vol. 519.* Liverpool, 1893. 8vo.
- CONSCOUGH BRIDGE. Report on the circumstances of an Accident in the factory of the Potentite Company at Conscough Bridge, near Melling, Lancashire. By Capt. Cundill. Lond. 1885. folio.
- CONSIDÈRE, J. Mémoire sur l'emploi du fer et de l'acier dans les constructions. Paris, 1885–86. 8vo.
- Note sur les efforts anormaux dans les ouvrages métalliques. *Tract. 8vo. vol. 443.* Paris, 1886. 8vo.
- CONSOLIDATED CAR-HEATING COMPANY. Various papers relating to Car-Heating. *Tract. 4to. vol. 113.* Albany, N.Y., 1890. 4to.
- CONSOLIDATED MINES ADVENTURERS. Observations on a statement of the Committee of the Consolidated Mines Adventurers. *Tract. 8vo. vol. 220.* Truro, 1838. 8vo.
- CONSTABLE, T. Memoir of L. D. B. Gordon, F.R.S.E. Edinburgh, 1877. 8vo.
- CONSTANTINE, J. Practical Ventilation and Warming. Lond. 1881. 8vo.
- CONTAG, M. Neuere Eisenconstructionen des Hochbaus in Belgien und Frankreich. Berlin, 1889. 4to.
- Project einer neuen Oder-Weichsel Verbindung mittelst eines Oder-Warthe-Netze Canals. See HAVESTADT, C., and CONTAG, M.
- CONTAMIN, V. Cours de résistance appliquée. Paris, 1878. 8vo.
- CONTE —, and OTHERS. Rapport sur les expériences faites sur le chemin de fer de Saint-Michel à Suze par la route impériale No. 6. *Tract. 8vo. vol. 157.* Paris, 1866. 8vo.
- CONTI, P. P. Della inalveazione de' fiumi del Bolognese, e dello Romagno; in risposta alla 4. memoria idrometrica del M. R. P. Leonardo Ximenes, ed a molti passi esaminati dell' altre cinque memorie. Si aggiungono le necessarie piante co' profili delle principali livellazioni, ed altri documenti non più impressi ricavati dall' ultima visita dell' Emo, e Rmo Sig. Cardinale Pietro Paolo Conti. Roma, 1766. 4to.
- Raccolta di progetti idrometrici di diversi celebri matematici sopra il corso e regolamento delle acque delle provincie di Bologna, Ferrara, e Romagna. 5 vols. Roma, 1763–66. 4to.

CONTIN, A. Relazione sulla regolarizzazione del porto di Lido. 1874. *See* MATI, F., and CONTIN, A.

CONVENTION OF AMERICAN INSTRUCTORS OF THE DEAF AND DUMB. Proceedings of the 9th Convention.

Columbus, 1879. 8vo.

CONWAY. A trip to Conway, and five days in Wales; with some account of the mineral spa recently discovered there. *Tract*. 8vo. vol. 258. *Lond*. 1837. 8vo.

CONYBEARE, H. Lectures on the principles and practice of Civil Engineering. *Lond*. 1857–59. 8vo.

— Second Report on the Supply of Water to Bombay, 1855. *See* INDIA.—BOMBAY.—[*Water Supply*.]

CONYBEARE, W. D., and DAWSON, W. Account and views of Land Slips on the east coast of Devon between Axmouth and Lyme Regis. *Lond*. 1840. folio.

CONYBEARE, W. D., and PHILLIPS, W. Outlines of the Geology of England and Wales. *Lond*. 1822. 8vo.

COODE, G. Unpolluted Streams. *Tract*. 8vo. vol. 223. *Lond*. 1858.

COODE, Sir J. Harbours and rivers—Queensland, Mackay. Report. *Lond*. 1887. 8vo.

— Harbours and rivers—Queensland, Townsville. Report. *Lond*. 1887. 8vo.

— On Military (or strategic) and Refuge Harbours. *Tract*. 8vo. vol. 251. *Lond*. 1875. 8vo.

— Port Natal. Report. *Tract*. folio. vol. 27. *Lond*. 1877. folio.

— Report on the proposed Harbour of refuge in Table Bay, Cape of Good Hope. *Tract*. folio. vol. 7. *Weymouth*, 1859. folio.

— Report to the Melbourne Harbour Trust on works of improvement. *Lond*. 1879. folio.

— Reports on the harbours of Table Bay, Mossel Bay, Knysna, Plettenberg Bay, Port Elizabeth, Port Alfred, and East London. *Lond*. 1877. folio.

— River Nene, Thorney Lordship, and proposed dock . . . at Wisbech. Report to the Duke of Bedford. *Tract*. 8vo. vol. 252. *Lond*. 1874. 8vo.

— River Tyne Improvement. Report on the Tyne piers construction. *Tract*. folio. vol. 24. *Lond*. 1877. folio.

— University College, Liverpool. Address to the students on the occasion of the opening of the Walker Engineering Laboratories. *Tract*. 8vo. vol. 497. 1889. 8vo.

— Whitehaven Harbour. Report on the wet dock. *Tract*. 8vo. vol. 305. *Lond*. 1866. 8vo.

COODE, Sir J., and CALVER, E. K. Report to the conservators of the River Thames upon a proposed weir and lock near Brentford. *Tract*. 8vo. vol. 357. *Lond*. 1873. 8vo.

COOK, G. H. Geology of New Jersey. (Atlas.) *Newark*, 1868. 8vo. and 4to.

- COOK, J. *Cursory remarks on the subject of Wheel Carriages.* *Tract.* 8vo. vol. 394. *London.* 1817. 8vo.
- COOKE, A., *Major, R.E.* *Lectures. Remarks on the study of Geology and on its value to the military engineer.* *Tract.* 8vo. vol. 243. *Chatham,* 1864. 8vo.
- COOKE, A. C., *Colonel.* *Aide-mémoire for the use of officers of Royal Engineers. Formulæ, tables, etc. (Pt. 2 by Col. Seddon.)* 2 vols. *London.* 1876–83. 12mo.
- COOKE, A. P. *A text-book of Naval Ordnance and gunnery, prepared for the use of the cadet midshipmen at the U.S. Naval Academy.* *New York,* 1880. 8vo.
- COOKE, C. J. B. *British Locomotives; their history, construction, etc.* *London.* 1893. 8vo.
- COOKE, C. J. B., and OTHERS. *Round the Works of our Great Railways; by various authors.* *London.* [1893.] 8vo.
- COOKE, C. W. *Automata, old and new. [Sette of Odd Volumes. No. xxix.]* *London.* 1893. 12mo.
- COOKE, E. W., and RENNIE, G. *Views of the old and new London Bridges.* *London.* 1833. folio.
- COOKE, G. A. *Topographical and statistical description of the county of Kent.* *London.* [1820 ?] 12mo.
- COOKE, S. *The Forest Question in India: being letters to the editor of the "Bombay Gazette."* *Tract.* 8vo. vol. 332. [1879.] 8vo.
- *Practical Chemistry: tables for qualitative analysis.* *Tract.* 8vo. vol. 281. *Bombay,* 1876. 8vo.
- *Rudiments of Astronomy. The solar system.* *Poona,* 1875. 8vo.
- COOKE, Rev. T. F. *Authorship of the practical Electric Telegraph of Great Britain; or, the Brunel award vindicated, etc.* *London.* 1868. 8vo.
- COOKE, Sir W. F. *The Electric Telegraph: was it invented by Professor Wheatstone?* *London.* 1854. 8vo.
- — [4th edition.] *London.* 1866. 8vo.
- *A reply to Mr. Cooke's pamphlet, "The Electric Telegraph: was it invented by Professor Wheatstone?" [By Sir C. Wheatstone.]* *Tract.* 8vo. vol. 119. *London.* 1855. 8vo.
- *The Electric Telegraph: was it invented by Prof. Wheatstone? A Reply to Mr. Wheatstone's answer.* *London.* 1856. 8vo.
- *The Electric Telegraph: was it invented by Professor Wheatstone? 2 vols. Vol. I. Pamphlets of 1854–56. Vol. II. Arbitration papers and drawings.* *London.* 1856. 8vo.
- *Telegraphic Railways; or, the single way recommended.* *London.* 1842. 8vo.
- COOLEY, A. J. *Cyclopædia of Practical Receipts and collateral information in the arts, manufactures, professions, and trades. 6th edition . . . enlarged by R. V. Tuson.* 2 vols. *London.* 1880. 8vo.

- COOLEY, L. E. *The Lakes and Gulf Waterway, as related to the Chicago sanitary problem, etc.* Chicago, 1891. 8vo.
- COOLEY, W. D. *Physical Geography, etc.* Lond. 1876. 8vo.
- COOMBE HILL CANAL. *An Act for making . . . a Canal from the foot of Coombe Hill in the parish of Leigh, Gloucestershire, to join the River Severn at Fletcher's Leap, Deerhurst, etc.* Lond. 1792. folio.
- COOPER, A. J. *How to Forecast the Weather, months in advance.* Tract. 8vo. vol. 493. Lond. 1890. 8vo.
- COOPER, C. H. *Chalk Water.* Tract. 8vo. vol. 359. Lond. 1884. 8vo.
- *Extract from a Paper on "Recent Progress in Sewage Treatment."* Tract. 8vo. vol. 496. 1890. 8vo.
- *Treatment of Sewage at Wimbledon, etc.* Tract. 8vo. vol. 456. Lond. 1887. 8vo.
- COOPER, J. H. *A treatise on the use of Belting for the Transmission of Power.* Philadelphia, 1878. 8vo.
- 4th edition. Philadelphia, 1891. 8vo.
- COOPER, R. T. *Our Empire of Rivers: with special reference to the reforesting of hills and uplands, and the clearing and deepening of the river and stream channels of the country.* Tract. 8vo. vol. 444. Lond. 1886. 8vo.
- COOPER, THEODORE. *American Railroad Bridges.* New York, [1889.] 8vo.
- *General specifications for Iron and Steel railroad Bridges and viaducts . . . Revised edition.* Tract. 8vo. vol. 488. New York, 1889. 8vo.
- COOPER, THOMPSON. *Men of the time: a dictionary of contemporaries.* 9th edition. Lond. 1875. 8vo.
- 11th edition. Lond. 1884. 8vo.
- COOPER UNION. *Second, (25th-32nd) annual report of the Trustees.* Tract. 8vo. vol. 125. New York, 1861-91. 8vo.
- COOPER'S HILL. *Royal Indian Engineering College. Calendar . . . 1871, (1875-76, etc.)* Lond. 1871, etc. 8vo.
- *Copy of all Correspondence . . . in reference to the Establishment of an Engineering College at Cooper's Hill.* Lond. 1871. folio.
- *Copy of the Appendix to the revised Prospectus of the College for the year 1871.* Lond. 1889. folio.
- *Further papers relating to the College.* Lond. 1871. folio.
- *The Indian Civil Engineering College: remarks by a Civil Engineer.* [Signed, H. W.] Tract. 8vo. vol. 205. Lond. 1871. 8vo.
- [Returns relating to Cooper's Hill College.] Lond. 1881-85. folio.

- COOTAMUNDRA. Report . . . relating to the proposed Railway from Cootamundra to Temora. *Sydney*, 1890. folio.
- COPE, E. D. I. The Relations of the Horizons of Extinct Vertebrata of Europe and North America. II. Observations on the Fauna of the Miocene Tertiaries of Oregon. *Tract. 8vo. vol. 481. Washington*, 1879. 8vo.
(From the "Bulletin of the U.S. Geol. and Geogr. Survey.")
- COPELAND ISLAND LIGHTHOUSE. Correspondence respecting the improvement of Copeland Island Light, and the adoption of Gas instead of Oil, etc. folio. *Lond.* 1880-82. folio.
- COPENHAGEN. Betænkning angaaende Kjøbenhavns Banegaards Udvidelse. *Tract. 4to. vol. 90. Kjøbenhavn*, 1881. 4to.
- Kjøbenhavns Havneraads Plan for Havnens Udvikling. *Tract. 4to. vol. 90. Kjøbenhavn*, 1881. 4to.
- Tabelværk til Kjøbenhavns Statistik. Nr. 3. (Statistique de Copenhague. Tableaux statistiques concernant le port de Copenhague.) *Copenhague*, 1878. 4to.
- COPLAND, J. On the Drainage and Sewage of London and of large towns. *Tract. 8vo. vol. 106. Lond.* 1857. 8vo.
- CORADI, G. An account of Hohmann-Coradi's Precision-Planimeters. *Tract. 8vo. vol. 409. Frankfort-on-Main*, 1855. 8vo.
- CORBETT, J. On the Re-housing of the Poorer Classes of Central London. [*Westgarth Prize Essay.*] *Lond.* 1886. 8vo.
- CORBETT, R. S. The universal Mining Code, 1890. See STEVENS, J., and CORBETT, R. S.
- CORDEMOY, C. J. DE. Essai d'une théorie élémentaire des marées. *Tract. 8vo. vol. 494. Dunkerque*, 1890. 8vo.
- Estudio relativo à los puertos de Constitución y Corral: y à las mejoras de los ríos Maule y Valdivia. Traducido del francés por A. Capdeville. [*Span. and Fr.*] *Santiago de Chile*, 1893. 8vo.
- Le Havre et les ports de la Seine. *Tract. 8vo. vol. 455. Paris*, 1888. 8vo.
- Le port de Saint Pierre (Ile de la Réunion). *Tract. 8vo. vol. 455. Paris*, 1888. 8vo.
- Travaux maritimes et construction des ports. *Paris*, 1883. 4to.
- CORDIER, —. Notes bibliographiques sur la question des essais et laboratoires d'essais des matériaux de construction en France et à l'étranger. [*Paris*, 1892-93.] folio.
- CORDIER, E. Équilibre stable des charpentes en fer, bois, et fonte. *Paris*, 1872. 4to.
- CORDIER, J. De la navigation intérieure du département du Nord, et particulièrement du canal de la Sensée, (et particulièrement des travaux du port de Dunkerque). 2 vols. *Lille, Paris*, 1820-25. 4to.

- CORDIER J.—*continued*. Histoire de la navigation intérieure ;
Vol. I. Particulièrement de celle d'Angleterre, jusqu'en 1803,
traduite de l'ouvrage de Phillips, et de celle de la France.
Vol. II. Particulièrement de celle des États-Unis d'Amérique ;
traduit de l'ouvrage de A. Gallatin par M. J. Cordier. 2 vols.
Paris, 1819–20. 8vo.
- Mémoire sur le canal de jonction de la Saône à la Moselle de
Châlons à Youle. *Tract.* 8vo. vol. 323. *Paris*, 1828. 8vo.
- Mémoire sur les projets présentés pour la jonction de la Marne à
la Seine, la dérivation de la Seine et les docks ou bassins-écluses à
établir dans les plaines de Choisy, d'Ivry et de Grenille. 3 parts.
Paris, 1827–29. 8vo.
- Ponts et chaussées : essais sur la construction des routes des
canaux, des ponts suspendus, des barrages, &c., et la législation
des travaux publics, extraits de divers ouvrages anglais. 2 vols.
atlas. *Lille and Paris*, 1823–28. 8vo. and folio.
- CORDOBA, *Argentine Republic*.—*Exposicion Nacional*. Boletin oficial.
7 vols. *Buenos Aires*, 1870–73. 8vo.
- COREA. Report by Vice-Consul Carles of a journey from Söul to the
Phyöng Käng Gold Washings. *Lond.* 1885. 8vo.
- CORFIELD, W. H. A digest of facts relating to the Treatment and
Utilization of Sewage. 2nd edition.
Lond. and New York, 1871. 8vo.
- Dwelling houses : their sanitary construction and arrangements.
[Cantor Lectures.] *Lond.* 1879. 8vo.
- — 3rd edition. *Lond.* 1894. 8vo.
- Water-supply, Sewerage, and Sewage Utilization. [Chatham
Lectures.] *Chatham*, 1874. folio.
- The Laws of Health. *Lond.* 1880. 8vo.
- CORINTH CANAL SOCIETY. Provisional Regulations for Navi-
gation for the year 1893. [Greek, French, and English.] *Tract.*
4to. vol. 115. [*Athens*, 1893.] 4to.
- CORIOLIS, G. Traité de la mécanique des corps solides et du
calcul de l'effet des machines. 2^{me} édition. *Paris*, 1844. 8vo.
- CORK.—*Queen's College*. Calendar . . . 1851, (1880, etc.)
Cork, 1851, 80, etc.
- CORLETT, H. L. Rails and Railways. *Tract.* 8vo. vol. 138.
[1860.] 8vo.
- CORNAGLIA, P. A. De la propagation des ondes dans les liquides.
Tract. 8vo. vol. 106. *Paris*, 1884. 4to.
- Delle spiagge. *Tract.* 4to. vol. 110. *Roma*, 1888. 4to.
(*Reale Accademia dei Lincei*.)
- Du flot de fond dans les liquides en état d'ondulation. *Tract.*
8vo. vol. 344. *Paris*, 1881. 8vo.
- Sul regime delle spiagge e sulla regolazione dei porti.
Torino, 1891. 8vo.

- CORNAGLIA, P. A.—*continued*. Sulla verificazione degli apparecchi lenticolari per fari. *Tract. 8vo. vol. 345. Milano, 1857. 8vo.*
- CORNBROOK. Report on a Fire and Explosion at Cornbrook on 22nd June, 1887. *folio. Lond. 1887. folio.*
- CORNELL UNIVERSITY, *Ithaca, N.Y.* Annual Report of the President, 1887-88. *Ithaca, 1888. 8vo.*
- Library. Special lists, No. 1. Mathematics. *Tract 8vo. vol. 377. Ithaca, 1883. 8vo.*
- Register. Session 1870-71, (1885-86, etc.) *Ithaca, 1871, 85, etc. 8vo.*
- CORNET, F. L. Considérations sur la production et l'emploi de l'air comprimé dans les travaux d'exploitation des mines. *Tract. 8vo. vol. 268. Mons, 1878. 8vo.*
- Le grisou et les perturbations atmosphériques. *Tract. 8vo. vol. 324. Bruzelles, 1881. 8vo.*
- CORNIL, —. Rapport fait [au Sénat] au nom de la commission chargée d'examiner le projet de loi, adopté par la Chambre des Députés, ayant pour objet l'utilisation agricole des eaux d'égout de Paris et l'assainissement de la Seine. *Paris, 1888. 4to.*
- CORNISH, J. Cornish's Grand Junction and the Liverpool and Manchester Railway Companion, containing an account of Birmingham, Liverpool and Manchester. *Birmingham, 1837. 8vo.*
- CORNISH, T. A lecture on our Gold Supply: its effect on finance, trade, commerce and industries. *Tract. 8vo. vol. 513. Lond. 1887. 8vo.*
- CORNU, L. Guide pratique pour l'étude et l'exécution des constructions en fer. *Paris, 1887. 8vo.*
- CORNUT, E. Congrès international de mécanique appliquée. Conférence sur les essais des fers et des aciers et les laboratoires de mécanique. *Lille, 1890. 8vo.*
- Essais dynamométriques, indicateur de Watt. *Tract. 8vo. vol. 268. Lille, 1873. 8vo.*
- CORNWALL, H. B. Manual of Blowpipe Analysis . . . with a complete system of determinative mineralogy. *New York, 1882. 8vo.*
- CORNWALL MINERS' ASSOCIATION. *See MINERS' ASSOCIATION OF CORNWALL AND DEVON.*
- CORNWALL MINING INSTITUTE. *See MINING INSTITUTE OF CORNWALL.*
- CORNWALL POLYTECHNIC SOCIETY. *See ROYAL CORNWALL POLYTECHNIC SOCIETY.*
- CORNWALL ROYAL INSTITUTION. *See ROYAL INSTITUTION OF CORNWALL.*
- CORPORATION OF FOREIGN BONDHOLDERS. Annual Reports of the Council. *Lond. 1874-79. 8vo.*

- CORROZA, C. Proyecto para mejorar la navegacion del Rio Guadalquivir en su region maritima. *Madrid*, 1859. 8vo.
- CORSEPIUS, M. Leitfaden zur Construction von Dynamo-maschinen und zur Berechnung von elektrischen Leitungen. *Berlin*, 1891. 8vo.
- CORT, C. Petition to the Commons of the United Kingdom, from the only surviving son of H. Cort. *Tract. folio. vol. 19.* *Westminster*, 1856. folio.
- CORT, H. Henry Cort's Inventions. Opinions of the press. *Tract. 8vo. vol. 126.* [1859.] 8vo.
- Observations, shewing the real value of Rolled Iron for free trade. *Tract. 8vo. vol. 126.* *Westminster*, 1860. 8vo.
- CORT, R. Review of the report of the committee of the House of Commons on the petition of Mr. Coningsby Cort, for services rendered to the iron trade, and to the British nation by the late Mr. Henry Cort, patentee of the puddling and rolling inventions for making bar iron. *Tract. 8vo. vol. 101.* *Lond.* 1855. 8vo.
- CORTHELL, E. L. The Atlantic and Pacific Ship-railway across the Isthmus of Tehuantepec. *Tract. 8vo. vol. 404.* *New York*, 1886. 8vo.
- Canals and Railroads. Ship canals and ship railways. *Tract. 8vo. vol. 406.* 1885. 8vo.
- An enlarged Waterway between the Great Lakes and the Atlantic Seaboard, etc. *Tract. 8vo. vol. 521.* *Montreal*, 1891. 8vo.
- A history of the Jetties at the mouth of the Mississippi river. *New York*, 1880. 8vo.
- Improvement of River Mouths. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.
- The Inter-Oceanic problem and its scientific solution. *Tract. 8vo. vol. 408.* *Ann Arbor*, 1885. 8vo.
- The Isthmian Ship-railway. *Tract. 8vo. vol. 435.* 1886. 8vo.
- Remarks at a meeting of the Western Society of Engineers, June 4, 1890, on the resolution to co-operate in erecting a monument to the late James B. Eads. *Tract. 8vo. vol. 509.* 1890. 8vo.
- A paper in English, French, and Spanish, on a proposition to erect a Monument in honour of the late J. B. Eads, etc. *Tract. 8vo. vol. 534.* [Chicago, 1891.] 8vo.
- The South Pass jetties: ten years' practical teachings in river and harbour hydraulics. *Tract. 8vo. vol. 430.* [New York,] 1884–86. 8vo.
- The Tehuantepec Ship-railway. *Tract. 8vo. vol. 404.* *Philadelphia*, 1884. 8vo.
- COSELEY, *Staffordshire*. Report . . . on the . . . Explosion at Mr. Joseph Green's small Firework Factory at Coseley . . . 6th August, 1892. *Lond.* 1893. folio.

- COSSIGNY, J. C. DE. Notions élémentaires théoriques et pratiques sur les irrigations. *Paris*, 1874. 8vo
- COSSOUX, L. L'exploitation du Canal de Panama. *Tract. 8vo. vol. 471. Bruxelles*, 1888. 8vo.
- Ville d'Ostende, jetée-promenade : description. *Tract. folio. vol. 44. Bruxelles*, 1888. folio.
- COSTA, J. Traité élémentaire de l'air comprimé. *Paris*, 1888. 8vo.
- COSTA ALVES, H. E. DA. Estrada de ferro da Victoria para minas. Relatorio. *Tract. 8vo. vol. 345. Rio de Janeiro*, 1876. 8vo.
- COSTA RICA. Contract between the Supreme Government of the Republic of Costa Rica and the Costa Rica Railroad Company. *Tract. 8vo. vol. 441. New York*, 1867. 8vo.
- Report of the Commission of Enquiry in reference to the proposed settlement of the External Debt of the Republic of Costa Rica. *Tract. 8vo. vol. 414. Lond. []* 8vo.
- COSTE, H., and MANIQUET, L. Traité théorique et pratique des machines à vapeur au point de vue de la distribution. *Paris*, 1886. 8vo.
- COTARD, C. Congrès Agricole de Toulouse, mai, 1885. Aménagement des eaux. *Tract. 8vo. vol. 430. Toulouse*, 1885. 8vo.
- La crise économique et agricole : aménagement des eaux pour l'irrigation. *Tract. 8vo. vol. 486 Paris*, 1888. 8vo.
- Le Nil et l'Égypte. *Tract. 4to. vol. 112. Paris*, 1884. 4to.
- COTELLE, L. B. Cours de droit administratif appliqué aux travaux publics. 3^e édition. 4 vols. *Paris*, 1859-62. 8vo.
- Législation française des chemins de fer et de la télégraphie électrique. 2^e édition. 2 vols. *Paris*, 1867. 8vo.
- COTGREAVE, A. Library appliances : a description of various inventions, etc. *Tract. 8vo. vol. 473. Richmond*, [1882?] 8vo.
- Library Indicators *versus* Book-keeping. *Tract. 8vo. vol. 422. Lond.* 1885. 8vo.
- COTSELL, G. A treatise on Ships' Anchors. *Lond.* 1856. 12mo.
- COTTA, B. von. Die Lehre von den Erzlagertstätten. 2 vols. Zweite Auflage. *Freiberg*, 1859-61. 8vo.
- A treatise on Ore Deposits : translated from the second German edition, by F. Prime. *New York*, 1870. 8vo.
- COTTAM, E. No Frog, no Foot. Observations on the "Goodenough" system of Shoeing Horses. *Tract. 8vo. vol. 180. Lond.* 1869. 8vo.
- COTTERILL, J. H. Applied Mechanics. *Lond.* 1884. 8vo.
- — 3rd edition, revised. *Lond.* 1892. 8vo.
- The Steam-engine considered as a Heat Engine. *Lond.* 1878. 8vo.
- — 2nd edition, enlarged. *Lond.* 1890. 8vo.

- COTTON, Sir A. Lectures on Irrigation Works in India. *Chatham*, 1875. folio.
- Papers on land and water Carriage in India. 1871. See CHESNEY, G., Col., and COTTON, Sir A.
- Profits upon British capital expended on Indian public works. *Tract.* 8vo. vol. 332. *London*, 1856. 8vo.
- Public works in India : their importance. Revised Indian edition. *Madras*, 1854. 8vo.
- Reply to Colonel Sir Proby Cautley's "Disquisition" on the Ganges Canal. *London*, 1864. 8vo.
- Reply to Sir Proby Cautley's valedictory note on the Ganges Canal. (Printed for private circulation.) *London*, 1865. 8vo.
- Study of Living Languages for colloquial purposes. *Tract.* 8vo. vol. 249. *Dorking*, 1875. 8vo.
- Thorough Cultivation. *Tract.* 8vo. vol. 513. *Dorking*, 1887. 8vo.
- COTTON, Sir A., and CAUTLEY, Sir P. T., Colonel. The Ganges Canal : a discussion regarding the projection and present state of the Ganges Canal, and the measures required to make it reliably useful and profitable. *London*, 1864. 8vo.
- COTTON, A. T., and TAYLOR, J. N. Reports on the Harbour of Beikul. 1858. See INDIA.—BEITKUL.
- COTTON, F. C., Lieut.-Col. Report of a tour of Inspection of the Northern Littoral Districts of the Madras Presidency. 1856. See INDIA.—MADRAS.
- COTTON, C. P. Loans Manual : a compilation of tables and rules for the use of local authorities. *London*, 1890. 8vo.
- A Manual of Procedure by provisional order under or relating to the Public Health (Ireland) Act, the Artisans' and Labourers' Dwellings Improvement Acts; the Labouring Classes' Lodging-Houses and Dwellings (Ireland) Acts; the Gas and Waterworks Facilities Acts; the Electric Lighting Act, the Housing of the Working Classes Act. *Dublin*, 1887. 8vo.
- Manual of Railway Engineering. 2nd edition. *London*, 1874. 8vo.
- Manual of Railway Engineering in Ireland. *Dublin*, 1861. 8vo.
- COTTON, J. S., and PAYNE, E. J. Colonies and dependencies. Part I. India. By J. S. Cotton. Part II. The Colonies. By E. J. Payne. *London*, 1883. 8vo.
- COTTON, W. A brief memoir of the late Captain Joseph Huddart, F.R.S., and an account of his inventions in the manufacture of cordage. *London*, 1855. 4to.
- COTTONIAN LIBRARY. See BRITISH MUSEUM.
- COTTRAU, A. New patented system of Locomotives, with wheels with two tires. [In Italian, French and English.] *Tract.* 8vo. vol. 340. *Napoli*, 1882. 8vo.

COUAILHAC, V. Fers et aciers : examen de la situation faite à la métallurgie par les différents procédés de fabrication inventés dans ces dernières années ; suivi du manuel pratique du puddleur pour la fabrication des fers fins. *Tract. 8vo. vol. 174.*

Liège, 1860. 8vo.

COUCHE, C. Rapport sur le frein automateur de M. Guérin. 1857. 8vo. *See* PROBERT, —, COMBES, C., and COUCHE, C.

— Voie, matériel roulant, et exploitation technique des chemins de fer. 3 vols. *Paris, 1867–76. 8vo.*

— Permanent Way, Rolling Stock and technical Working of Railways. . . . Translated from the French, etc. (Atlases of Plates.) 6 vols. *Lond. and Paris, 1877–1884. 4to.*

— Rapport sur le système de locomotive articulée et à douze roues couplées proposé par M. L. Rarchaert. *Tract. 8vo. vol. 137.*
[1863.] 8vo.

COUCHE, É. Les eaux de Paris en 1884. *Tract. folio. vol. 34.*

Paris, 1885. folio.

COUES, E., and YARROW, H. C. Notes on the Herpetology of Dakota and Montana. *Tract. 8vo. vol. 481.*

Washington, 1878. 8vo.

(From the Bulletin of the U.S. Geol. and Geogr. Survey.)

COUHARD, Capt. An abstract of Couhard's Cellular theory of Steel. *Tract. 8vo. vol. 457.*

Woolwich, 1888. 8vo.

COULIER, P. J. Description générale des phares et fanaux. 1^{re} édition. *Tract. 8vo. vol. 424.*

Paris, 1855. 8vo.

— — Édition de septembre, 1880, avec deux suppléments.

Paris, 1884–86. 8vo.

COULOMB, C. A. Mémoires sur l'électricité et le magnétisme.

Paris, 1785–89. 4to.

— Théorie des machines simples, en ayant égard au frottement de leurs parties et à la roideur des cordages. Nouvelle édition.

Paris, 1821. 4to.

COULON, R. Rapport comparatif sur l'éclairage des quais de Rouen. *Tract. 8vo. vol. 321.*

Paris, 1880. 8vo.

COULSON, S. A treatise on the Engineer's and Mechanic's Slide-rule. *Stokesley, 1842. 12mo.*

COULTHARD, H. C. Blast-engines : containing plates to scale.

Lond. 1867. folio.

— Description of the new Iron Works at Grosmont. *Tract. 8vo. vol. 136.*

[*Lond. 1863.*] 8vo.

(From the Proc. Inst. M.E.)

COURTEMANCHE, R. Description d'un navire aérien pouvant servir à une locomotion atmosphérique. *Tract. 8vo. vol. 429.*

Paris, [1882?] 8vo.

COURTIN, —. Travaux des ponts et chaussées depuis 1800, ou tableau des constructions neuves, etc. *Paris, 1812. 8vo.*

- COURTIN, A. J. *La chaleur et ses applications aux machines à air chaud, aux machines à air comprimé et aux machines à vapeur.* 2^{me} édition. *Paris*, 1878. 8vo.
- COURTNEY, J. *The Boilermaker's Assistant.* Edited by D. K. Clark. *Lond.* 1880. 8vo.
- *The Boilermaker's Ready Reckoner. . . .* Edited by D. K. Clark. 2nd edition. *Lond.* 1885. 8vo.
- COURTNEY, W. P. *Bibliotheca Cornubiensis, etc.* 1874–82. *See* BOASE, G. C., and COURTNEY, W. P.
- COURTOIS, C. *Traité des moteurs hydrauliques, etc.* *Paris*, [1865?] 8vo.
- COUSINS, R. H. *A theoretical and practical treatise on the Strength of Beams and Columns.* *New York*, 1889. 8vo.
- COUVREUR, L. *Of Tolls and Fees collected on Navigable Ways.* [5th. *Int. Congr. Int. Nav.*] [*Paris*, 1892.] 8vo.
- COVENTRY CANAL. *An Act for the Construction . . . of a Canal from Coventry to Oxford.* *Lond.* 1769. folio.
- *An Act [1774] to amend [the Coventry Canal Act of 1769].* *Lond.* 1824. folio.
- *An Act for amending several Acts . . . relating to the Coventry Canal.* *Lond.* 1819. folio.
- COVINGTON AND CINCINNATI BRIDGE COMPANY. *Annual Report.* *Tract.* 8vo. vol. 197. *Trenton*, 1867. 8vo.
- COWDIN, J. *Description and testimonials of the patent Locomotive steam double Pile driving and railway grading machine.* *Tract.* 8vo. vol. 77. *Lond.* 1842. 8vo.
- COWDON, J., *Capt.* *Testimony before the special committee for examination into the subject of the work of the Mississippi River Commission and the lever and outlet systems.* *Tract.* 8vo. vol. 348. *Washington*, 1883. 8vo.
- COWE, *Rev.* J. *The Meteorological Register kept at Sunbury Vicarage, Middlesex, 1795 to 1839.* *Lond.* 1889. folio.
- COWEN, R. *On the application of the Syphon for Drainage.* *Tract.* 8vo. vol. 105. *Carlisle*, 1853. 8vo.
- COWIE, M. *Letter to the Duke of Buccleuch, on the education at Putney College.* *Tract.* 8vo. vol. 97. *Lond.* [1850?] 8vo.
- *A programme of the subjects of examination for the diploma of the College for Civil Engineers . . . Putney.* *Tract.* 8vo. vol. 178. [*Lond.*] 1844. 8vo.
- COWLEY, J. L. *An appendix to the elements of Euclid . . . by which the doctrine of solids in . . . Euclid is illustrated, etc.* 2nd edition. *Lond.* [1766.] 4to.
- COWLEY, J. L., and JONES, W. *An illustration and mensuration of Solid Geometry.* 3rd edition. *Lond.* 1787. 4to.

- COWPER, E. A. Cowper's patent method of casting Railway Chairs.
Tract. 8vo. vol. Westminster, [] 8vo.
- Description of an improved Suspension Bridge, etc.
Birmingham, 1847. 8vo.
- The Writing Telegraph, with samples of writing. *Tract. 8vo. vol. 308. [Lond. 1879.] 8vo.*
- COWPER, E. A., and ANDERSON, W. Experiments on the Mechanical Equivalent of Heat on a large scale. *Tract. 8vo. vol. 450. Lond. 1887. 8vo.*
- COWRA, N.S.W. Report . . . relating to the proposed Iron Bridge at Cowra. *Sydney, 1890. folio.*
- COX, E. W. The new Law and practice of Joint-stock Companies. 2nd edition. *Lond. 1856. 12mo.*
- COX, G. Agricultural Chemistry. *Tract. 8vo. vol. 373. Bedford, 1844. 8vo.*
- COX, Rev. Sir G. W., Bart. Dictionary of Science, Literature and Art. 1865-67. See BRANDE, W. T., and Cox, Rev. Sir G. W.
- COX, H. Manual of the Differential Calculus. *Cambridge, 1851. 8vo.*
- The Law and Science of Ancient Lights. *Tract. 8vo. vol. 182. Lond. 1869. 8vo.*
- COX, J. H. Borough of Bradford. Queries and replies *re* Tramways. *Tract. folio. vol. 42. 1882. folio.*
- COX, J. N. Report on Irrigation in the Vere district of the parish of Clarendon, Jamaica. *Tract. folio. vol. 26. [Kingston, Ja.,] 1879. folio.*
- COX, P., Lieut.-Col. Report of 1876 upon the union proposed by the Surbiton Commissioners (Lower Thames Valley Drainage). MS. *Lond. 1876. folio.*
- Thames Valley Sewerage. Report upon an application from the Local Board of Hampton Wick to the Local Government Board. MS. *Lond. 1877. folio.*
- COX, S. F. Notes on the present use of Portland Cement and Concrete. *Tract. 8vo. vol. 477. [Roorkee,] 1881. 8vo.*
- On Brick and Tile manufacture in England. *Tract. 8vo. vol. 483. [Roorkee,] 1881. 8vo.*
- COXE, E. B. A new method of Sinking Shafts. *Tract. 8vo. vol. 485. [New York,] 1872. 8vo.*
- COXWORTHY, F. Condition of the Earth and Atmosphere, during the years 1845 and 1847. *Tract. 8vo. vol. 149. Lond. 1848. 8vo.*
- Electrical Condition applied to facts connected with heat crystallisation, meteorology, evaporation, magnetic condition of the earth, gravitation, chemical affinity, respiration, ventilation, constitution of the atmosphere, agriculture, and geology. *Tract. 8vo. vol. 100. Lond. 1848. 8vo.*

- COXWORTHY, F.—*continued*. Government: its uses and abuses. *Tract. 8vo. vol. 100.* *Lond. 1852. 8vo.*
- On the Constitution of the Atmosphere. *Tract. 8vo. vol. 149.* *Lond. 1847. 8vo.*
- The Potato Disease and bad ventilation. *Tract. 8vo. vol. 149.* *Lond. 1847. 8vo.*
- CRABB, G. English Synonymes explained. 6th edition. *Lond. 1837. 8vo.*
- GRACE-CALVERT, F. Conductibility of Mercury and Amalgams. *Tract. 4to. vol. 48.* *Lond. 1859. 4to.*
- Dyeing and Calico Printing. 2nd edition. *Manchester, 1876. 8vo.*
- Experiments on the Oxidation of Iron. *Tract. 8vo. vol. 233.* *Manchester, 1872. 8vo.*
- Note sur la préparation du coke destiné à la fabrication de la fonte. *Tract. 4to. vol. 48.* [*Paris, 1852.*] *4to.*
- On the increased Strength of Cast Iron, produced by the use of improved Coke: with a series of Experiments by William Fairbairn. *Tract. 8vo. vol. 501.* *Lond. 1855. 8vo.*
(From Min. Proc. Inst. C.E.)
- GRACE-CALVERT, F., and JOHNSON, R. On the relative powers of metals and alloys to conduct heat. Part 1. *Tract. 4to. vol. 41.*
(From the Philosophical Transactions.) *Lond. 1858. 4to.*
- On the Specific Gravities of Alloys. *Tract. 8vo. vol. 126.*
(From the Philosophical Magazine.) [*Lond. 1859.*] *8vo.*
- CRACKNELL, E. W. Passenger and Warehouse Lifts. *Tract. 8vo. vol. 361.* *Sydney, 1882. 8vo.*
- CRADDOCK, T. Description, with experiments, *etc.*, of a patent universal Condensing Engine. *Tract. 4to. vol. 37.* *Birmingham, 1844. 4to.*
- The History of Wisbech and the Fens. 1849. *See WALKER, N., and CRADDOCK, T.*
- CRADLEY HEATH. Report on an Explosion of Gunpowder at Cradley Heath, Staffordshire, on the 7th April, 1887. *Lond. 1887. folio.*
- CRAIG, *Forfarshire*. Report on an Explosion of Nitroglycerine at Craig, near Montrose, 5th March, 1880. By Major A. Ford. *Lond. 1880. folio.*
- CRAIG, A. Craig's patent Rotary steam-engine explained and illustrated; with a concise review of the invention of the piston engine, and a comparative estimate of their relative power and advantages. *Tract. 8vo. vol. 62.* *Lond. 1841. 8vo.*
- CRAIG, T. On the Motion of a Solid in Fluid. *New York, 1879. 8vo.*
- Wave and Vortex Motion. *New York, 1879. 8vo.*
- CRAIG, W. J. Scientific Tri-Unities. *Stratford, 1889. 8vo.*
(From Trans. Inst. Marine Engineers.)

- CRAIK, D. *Practical American Millwright and Miller.*
Philadelphia, 1877. 8vo.
- CRAM, T. J. *Report upon the Decay and Preservation of Timber.*
Tract. 8vo. vol. 226. *Washington*, 1871. 8vo.
- CRAMER, J. A. *Elements of the art of Assaying Metals.*
Lond. 1744. 8vo.
- — — *Second edition.* *Lond.* 1764. 8vo.
- CRAMPTON, T. R. *New design for Locomotive Engines.* *Tract.*
8vo. vol. 422. [1886.] 8vo.
- CRANE, G. v. PRICE and OTHERS. [Report of a trial in the Court of
Common Pleas, Westminster, February 11, 1840, for an infringe-
ment of Crane's Patent for the use of anthracite combined with
hot blast in the smelting of iron.] *Lond.* 1840. folio.
- CRANE, W. J. E. *The Sheet-metal worker's guide.*
Lond. 1883. 8vo.
- *The Smithy and Forge ; a rudimentary treatise, etc.*
Lond. 1883. 8vo.
- CRANSTONHILL WATERWORKS, *Glasgow.* *An Act to enable*
the . . . Proprietors . . . to improve their Works (1819).
Lond. 1834. folio.
- CRARAE QUARRY, *Loch Fyne.* *Report by Col. A. Ford on an*
Explosion at Craræ Quarry, Loch Fyne. *Lond.* 1887. folio.
- CRAWFORD, A. *Papers relating to a proposal for the establishment*
of a harbour and dock trust, and for the construction of a wet
dock in Moody Bay. *Tract.* 8vo. vol. 193. *Bombay*, 1867. 8vo.
See INDIA.—BOMBAY. *Annual Report of the Municipal Com-*
missioner [A. Crawford]. 1868.
- CRAWFORD, J. C. *Essay on the Geology of the North Island of*
New Zealand. *Dunedin*, 1865. 8vo.
(Bound with Reports, Exhibition, New Zealand, 1866.)
- CRAWFORD, J. L. *Forth and Clyde Ship Canal in relation to the*
development of commerce. *Glasgow and Lond.* 1891. 8vo.
- CRAWFORD, R. *Report upon the proposed Transandine Railway,*
to connect Buenos Ayres with Chile, by a line over the Planchon
pass. *Tract.* 8vo. vol. 227. *Buenos Ayres*, 1872. 8vo.
- CRAWFURD, O. *Report on the bar and navigation of the Douro.*
Tract. 8vo. vol. 154. *Oporto*, 1866. 8vo.
- CREAMER, W. G. *Railway Safety.* *Tract.* 8vo. vol. 138.
Lond. 1863. 8vo.
- CREASSY, J. *Report on the Drainage and improvement of the*
Keyingham Level and the adjoining country. *Tract.* 8vo. vol. 46.
Hull, 1801. 8vo.
- CREED, H. H., and WILLIAMS, W. *Handicraftsmen and Capitalists :*
their organisation at home and abroad. *Tract.* 8vo. vol. 167.
Birmingham, 1867. 8vo.

- CREHORE, J. D. *Mechanics of the Girder: a treatise on Bridges and Roofs.* *New York*, 1886. 8vo.
- CRELLE, A. L. *Journal für die reine und angewandte Mathematik.* See PERIODICAL PUBLICATIONS.
- *Mémoire sur les différentes manières de se servir de l'élasticité de l'air atmosphérique comme force motrice sur les chemins de fer.* *Berlin*, 1846. 4to.
- *Rechentafeln. Fünfte Auflage.* *Berlin*, 1880. folio.
- CRELLIN, W. *Complete Traverse Table.* (Reading instrument in case.) *Melbourne*, 1881. 4to.
- CREMONA, L. *Graphical Statics: two treatises on the graphical calculus and reciprocal figures in graphical statics, etc.* *Oxford*, 1890. 8vo.
- CRESSON, J. C. *Report to the trustees of the Philadelphia Gas-works.* *Philadelphia*, 1841. 8vo.
- CRESSWELL, D. *An elementary treatise on the geometrical and algebraical investigation of Maxima and Minima, etc.* *Cambridge*, 1817. 8vo.
- CRESWELL, C. E. *Ventilation of Sewers and Drains. Tract. folio. vol. 34.* *Lond.* 1884. folio.
- CRESY, E. *An analytical index to An historical Essay on Architecture, by the late Thomas Hope.* *Lond.* 1863. 8vo.
- *An Encyclopædia of Civil Engineering.* 2 vols. *Lond.* 1847. 8vo.
- *A practical treatise on Bridge-building, and on the equilibrium of vaults and arches.* (Incomplete.) *Lond.* 1839. folio.
- CREUSOT. *Rapport sur les établissemens du Creusot, etc. Tract. 4to. vol. 6.* *Paris*, 1828. 4to.
- CREUZE, A. F. B. *Papers on Naval Architecture, etc.* 1827, etc. See MORGAN, W., and CREUZE, A. F. B.
- See MURRAY, A. *The Theory and Practice of Ship-Building. With portions of the Treatise on Naval Architecture, by A. F. B. Creuze.* 1861.
- CREW, B. J. *A practical treatise on Petroleum: together with . . . an appendix on the oil regions and the geology of natural gas in Pennsylvania and New York, by C. A. Ashburner.* *Lond.* 1887. 8vo.
- CREWE. *The Jubilee of Crewe. Containing a brief history of the . . . borough . . . with an account of the Jubilee rejoicings, etc.* *Crewe*, 1887. 4to.
- CRIMP, W. S. *A paper on the Wimbledon Main Drainage and Sewage Disposal works, 1888. Tract. 8vo. vol. 469.* [*Lond.*] 1888. 8vo.
- *Road-watering. Tract. 8vo. vol. 419.* [1886 ?] 8vo.

- CRIMP, W. S.—*continued*. Sewage Disposal Works: a guide to the construction of works for the prevention of the Pollution by Sewage of rivers and estuaries. *Lond.* 1890. 8vo.
- 2nd edition, revised and enlarged. *Lond.* 1894. 8vo.
- Sewage Treatment and Sludge Disposal. *Lond.* 1893. 8vo.
- Sewer Ventilation. [*Lond.* 1891.] folio.
- Some general notes on the Working of the London Main Drainage System. *Tract.* 8vo. vol. 511. *Lond.* 1893. 8vo.
- CRINAN CANAL. An Act for . . . the Payment of Money to be applied in completing the Canal, *etc.* *Lond.* 1816. folio.
- See also* FORTH AND CLYDE CANAL. Act, *etc.*, 1799.
- CRIPPS, F. S. The Flow of Gases and Proportioning Gas Mains, *etc.* With four diagrams. *Lond.* 1892. 4to. and folio.
- Gasholders with or without framing . . . With a synopsis of the principal literature on Gasholder Construction. 1893. *See* PHASE, E. L., and CRIPPS, F. S.
- The Guide-framing of Gasholders, and other papers. *Lond.* 1889. 8vo.
- CRIPPS, H. L. The Position of the London Water Companies, considered from a Parliamentary and Legal point of view, *etc.* *Lond.* [1892.] 8vo.
- CRISTOFORIS, L. DE. Relazione . . . sopra alcune macchine da lui specialmente esaminate all'Esposizione di Londra del 1851. *Tract.* 8vo. vol. 181. *Milano*, 1852. 8vo.
- CRIVELLI, J. Nouvelle machine qui offre trois forces motrices en même tems . . . Projet pour changer avec avantage les deux roues des bateaux à vapeur actuellement existantes; réunion du baril américain au semoir italien. *Tract.* 8vo. vol. 504. *Bruzelles*, 1827. 8vo.
- CROCKETT, J. B. Gas Furnaces, generative or recuperative. *Tract.* 8vo. vol. 406. *San Francisco*, 1885. 8vo.
- CROES, J. J. R. Memoir of the construction of a Masonry Dam for a Storage Reservoir. *New York*, 1875. 8vo.
- Report on the extent of the first works to be constructed for supplying Water to Syracuse, N.Y. *Tract.* 8vo. vol. 496. *New York*, 1890. 8vo.
- Report on the Sewage Problem in East Orange. *Tract.* 8vo. vol. 372. *East Orange*, 1884. 8vo.
- The Rivers at Johnstown, Pennsylvania. Report to the Board of Trade of the city of Johnstown, June 15, 1891. *New York City*, 1891. 8vo.
- The Sewerage of Geneva, N.Y. *Tract.* 8vo. vol. 358. *New York*, 1884. 8vo.
- The Skaneateles Lake Water Supply. *Tract.* 8vo. vol. 496. 1889. 8vo.
- Statistical Tables . . . of American Waterworks, 1883, (1885–87.) 2 vols. *New York*, 1883–87. 8vo.
- Statistical Tables of American Waterworks, 1887. 1887. 8vo.

- CROES, J. J. R., and HOWELL, G. W. Newark Aqueduct Board.
Report on additional Water Supply. *Newark, U.S.*, 1879. 8vo.
- CROFTON, M. W. Lectures on the elements of Applied Mechanics,
etc. 2nd edition. *Lond.* 1886. 8vo.
- CROIZETTE-DESNOYERS, P. Cours de construction des ponts.
2 vols. (Atlas of plates.) *Paris*, 1885. 4to. and folio.
- Notice sur les travaux publics en Hollande. *Paris*, 1874. 4to.
- CROLL, A. A. The Great Central Gas Company; its origin and
history. *Tract.* 8vo. vol. 248. *Lond.* 1875. 8vo.
- On the construction and use of Gas Meters. *Tract.* 8vo. vol. 502.
(From Min. Proc. Inst. C.E.) *Lond.* 1845. 8vo.
- On the purification of Coal Gas, and the application of the
products to Agricultural and other purposes. *Tract.* 8vo. vol. 502.
(From Min. Proc. Inst. C.E.) *Lond.* 1844. 8vo.
- CROMBIE, J. M. The Geological Relations of the Alpine Flora of
Great Britain. *Tract.* 8vo. vol. 474. *Lewes*, [1870?] 8vo.
- CROMFORD CANAL. An Act for making and maintaining a
Canal from . . . Cromford Bridge to join the Erewash Canal
at Langley Bridge, *etc.* *Lond.* 1789. folio.
- An Act to alter and amend the [Cromford Canal Act, 1789].
Lond. 1790. folio.
- CROMPTON, R. E. System of Electric Lighting. *Tract.* 4to. vol. 87.
[1881.] 4to.
- The Electric Light for industrial uses. *Tract.* 8vo. vol. 329.
[1880?] 8vo.
- CROMPTON, R. E., AND Co. Note book . . . with useful formulæ.
Lond. 1886. 12mo.
- CROMWELL, J. H. A treatise on Belts and Pulleys.
New York, 1885. 8vo.
- A treatise on Toothed Gearing. *New York*, 1884. 8vo.
- CRONSTEDT, A. F. An essay towards a System of Mineralogy.
Second edition. *Lond.* 1772. 8vo.
- CROOK, H. T. The maps of the Ordnance Survey: as they are and
as they ought to be. *Tract.* 8vo. vol. 527.
Manchester, 1892. 8vo.
- A scheme for the Water Supply of south-east Lancashire: proposed
Derwent waterworks. *Tract.* 8vo. vol. 378.
Manchester, 1885. 8vo.
- CROOKES, W. Dyeing and tissue printing, *etc.* *Lond.* 1882. 8vo.
- On the manufacture of Beet-root Sugar in England and Ireland
Lond. 1870. 8vo.
- A practical handbook of Dyeing and Calico-printing.
Lond. 1874. 8vo.
- The profitable Disposal of Sewage. *Tract.* 8vo. vol. 307.
Lond. 1876. 8vo.

- CROOKES, W.—*continued*. Report on recent trials of the A B C process [of purifying sewage] made by the Leeds Corporation at Knostrop, Leeds. *Tract. 8vo. vol. 307.* *Lond.* 1876. 8vo.
- Select methods in Chemical Analysis (chiefly inorganic). *Lond.* 1886. 8vo.
- A Solution of the Sewage Problem. *Tract. 8vo. vol. 372.* *Lond.* 1873. 8vo.
- Twelve months' experience with the A B C process of purifying Sewage. *Tract. 8vo. vol. 307.* *Lond.* 1872. 8vo.
- CROOKES, W., and RÖHRIG, E. A practical treatise of Metallurgy, adapted from the last German edition of "Professor Kerl's Metallurgy." 3 vols. *Lond.* 1868–70. 8vo.
- CROOKES, W., ODLING, W., and TIDY, C. M. London Water Supply. Report on the composition of daily samples of the Water supplied to London. No. 1, *etc.* *Lond.* 1881, *etc.* 4to
- CROSBY, O. T., and BELL, L. The Electric Railway in theory and practice. *New York,* 1892. 8vo.
- CROSBY, H. Practical observations on the Pneumatic Process; or, the improved method of expelling the molasses and syrup from raw Sugar. *Tract. 8vo. vol. 57.* *Lond.* 1830. 8vo.
- CROSS, C. F., and BEVAN, E. J. A text book of Paper-making. *Lond.* 1888. 8vo.
- CROSS, C. S. Engineer's Field Book. 3rd edition. *New York,* 1890. 8vo.
- CROSS, W., and HILLEBRAND, W. F. Contributions to the Mineralogy of the Rocky Mountains. [*U.S. Geol. Survey. Bulletin* No. 20.] *Washington,* 1885. 8vo.
- CROSSBY, W. E., and CAREY, A. Specification [for] improvements in Machinery for Digging Land. *Tract. 4to. vol. 117.* *Lond.* 1881. 4to.
- CROUCH, A. P. On a Surf-bound coast; or, Cable-laying in the African tropics. *Lond.* 1887. 8vo.
- CROUCHER, J. Analytical hints on the patent Marine Time-keeper. *Tract. 8vo. vol. 465.* *Lond.* [1820?] 8vo.
- CROUZET, J. B., and COLOMBAT, —. Navire insubmersible. (Nouvelle application de l'air comprimé.) *Tract. 8vo. vol. 241.* *Paris,* 1874. 8vo.
- CROWELL, J. F. Uniform Practice in File-Driving. [*New York,* 1892.] 8vo.
- CROYDON. Croydon Improvement Act, 1890. *Lond.* 1890. folio.
- Remarks on the proposition to discharge a portion of the Sewage of the parish of Croydon into a sewer under the jurisdiction of the Metropolitan Board of Works at Bell Green, in the parish of Lewisham. *Tract. 8vo. vol. 133.* [*Lond.*] 1862. 8vo.

CROYDON—*continued*. Reports by N. Arnott and T. Page relative to the prevalence of disease at Croydon and to the plan of sewerage. *Lond.* 1853. folio.

— Report of T. Wicksteed on the state of the works of Drainage and Sewerage of Croydon, and on the measures proposed to remedy its defects. *Lond.* 1853. folio.

— Further Report from the consulting engineer to the General Board of Health on the Croydon Sewerage. *Lond.* 1853. 8vo.

— Statement of the preliminary inquiry by T. Southwood Smith, M.D., and J. Sutherland, M.D., on the epidemic at Croydon. *Lond.* 1853. 8vo.

CROYDON AND EPSOM RAILWAY. Atmospheric Railways; minutes of evidence of the engineers before the Committee on the Croydon and Epsom and South Western railway. *Lond.* 1844. folio.

CROYDON AND NORWOOD TRAMWAYS COMPANY. An Act to amalgamate . . . the Croydon Tramways Company and the Norwood District Tramways Company, *etc.* *Lond.* 1883. folio.

CROYDON CANAL. An Act for making and maintaining a Navigable Canal from Croydon . . . into the Grand Surrey Canal: and for supplying the towns of Croydon, Dulwich, Norwood and Sydenham with Water from the said Canal. *Lond.* 1801. folio.

— An Act for enabling the proprietors to complete the Canal. *Lond.* 1808. folio.

— An Act for enabling the proprietors to complete the Canal and Works and for amending former Acts. *Lond.* 1811. folio.

CRUDEN, R. P. The history of the town of Gravesend . . . and of the port of London. *Lond.* 1843. 8vo.

CRUGNOLA, G. Dizionario di ingegneria e di architettura nelle lingue italiana, francese, inglese e tedesca, *etc.* (in progress.) *Torino*, 1884, *etc.* 8vo.

— Sui muri di sostegno delle terre. *Torino*, 1883. 8vo.

CRUICKSHANK, W. D. On the strength of Shafting. *Tract.* 8vo. vol. 363. *Sydney*, 1880. 8vo.

— Strength and construction of Steam Boilers. *Tract.* 8vo. vol. 362. *Sydney*, 1882. 8vo.

CRULS, L. O clima do Rio de Janeiro. [Port. and Fr.] *Rio de Janeiro*, 1892. folio.

— Descrição e theoria do barometro differencial destinado aos nivelamentos barometricos. *Tract.* 8vo. vol. 468. *Rio de Janeiro*, 1888. 8vo.

— Instruções para as Comissões Brasileiras que têm de observar a passagem de Venus. *Tract.* 4to. vol. 110. *Rio de Janeiro*, 1882. 4to.

- CRYSTAL PALACE, *Sydenham*. The great triennial Handel Festival at the Crystal Palace. Programme of arrangements. *Tract. 8vo. vol. 137.* *Lond. 1862. 8vo.*
- The Handel Commemoration festival at the Crystal Palace in 1859. Programme of arrangements. *Tract. 8vo. vol. 115.* *Lond. 1859. 8vo.*
- *International Electric Exhibition, 1881–82.* See LONDON.—EXHIBITIONS.
- *Electrical Exhibition, 1892.* See LONDON.—EXHIBITIONS.
- *International Exhibition of Mining and Metallurgy, 1890.* See LONDON.—EXHIBITIONS.
- *School of Practical Engineering.* List, Syllabus, and Curriculum. 1886 and 1887. *1886–87. 8vo.*
- CSATÁRY, L. DE. L'hygiène des chemins de fer et des voyageurs. *Lond. [1891.] folio.*
- CUBA. Cuba and Nassau, the winter sanitariums. *Tract. 8vo. vol. 426.* *New York, [1886.] 8vo.*
- CUBITT, C. *Floscularia coronetta*, a new species; with observations on some points in the economy of the genus. *Tract. 8vo. vol. 178.* *Lond. 1869. 8vo.*
- CUBITT, J., and CARR, H. Blackfriars-bridge. Contract for removal of existing bridge and for building the proposed new bridge. A reprint from the edition of 1864. [*Lond.*] 1869. folio.
- CUBITT, L. Conditions of contract and specification of works (with ten accompanying drawings) prepared for the works to be done in the construction of iron roofing to adjoin the buildings of the permanent goods and temporary passenger station, Maiden-lane, near King's Cross, London. (Atlas of plates.) *Tract. folio. vol. 5.* *Lond. 1850. folio.*
- CUBITT, Sir W. Address to the Institution of Civil Engineers, Jan. 8th, 1850. *Tract. 8vo. vol. 499.* *Lond. 1850. 8vo.*
- Description of a plan for a central union Canal, which will . . . unite the Birmingham, Warwick and Birmingham, Coventry, and Oxford canals. *Tract. 8vo. vol. 5.* *Lond. 1832. 8vo.*
- Description of the Treadmill invented by Sir W. Cubitt for the employment of prisoners, and its application to a corn and flour-mill. *Tract. 8vo. vol. 62.* *Lond. 1822. 8vo.*
- Dublin Harbour. Report to the commissioners. *Tract. 8vo. vol. 305.* *1835. 8vo.*
- Public reasons against Railroads. [With replies by W. Cubitt.] 1825. See ANONYMOUS.
- Report on Falmouth Harbour. *Tract. 4to. vol. 16.* *Falmouth, 1835. 4to.*
- A report on the best line of Railway Communication between Boulogne and Amiens. *Tract. 8vo. vol. 77.* *Boulogne, 1843. 8vo.* (In French and English.)

- CUBITT, Sir W.—*continued*. A report on the Boulogne and Amiens railway. *Tract. 4to. vol. 36.* Paris, 1844. 4to.
- Report on the improvement of the Port and Harbour of Belfast. *Tract. 8vo. vol. 286.* Belfast, 1835. 8vo.
- Report on the London and Blackwall Railway. 1837. See LONDON AND BLACKWALL RAILWAY.
- Report upon the Sewerage and Water-supply of Oxford. Amersham, 1851. 8vo.
- CUBITT, Sir W., and BARLOW, P. W. Proposed new Bridge at Londonderry. Reports. *Tract. folio. vol. 10.* Westminster, 1857. folio.
- CUBITT, Sir W., and SOPWITH, T. The Sambre and Meuse Railway. *Tract. 4to. vol. 81.* Lond. 1844. 4to.
- CUCINIELLO, D., and BIANCHI, L. Viaggio pittorico nel regno delle due Sicilie. 3 vols. Napoli, [] folio.
- CUENTO, J. DE. Will a Drowned person be raised by the discharge of a Cannon? *Tract. 8vo. vol. 473.* [Philadelphia,] 1884. 8vo.
- CULCAIRN. Report . . . relating to the proposed Railway from Culcairn to Corowa. Sydney, 1889. folio.
- CULCHETH, W. W. Irrigation. *Tract. 8vo. vol. 471.* Melbourne, 1886. 8vo.
- Irrigation in India : its lessons for Australia. *Tract. 8vo. vol. 514.* Melbourne, 1891. 8vo.
- Irrigation Works in Australia : how they may be made remunerative. *Tract. 8vo. vol. 514.* Melbourne, 1891. 8vo.
- The late Flood in Melbourne. *Tract. 8vo. vol. .* Melbourne, 1891. 8vo.
- Quantity of Water consumed in Irrigation. *Tract. 8vo. vol. 455.* Melbourne, 1882. 8vo.
- Shingle on the east coast of New Zealand. *Tract. 8vo. vol. 473.* Melbourne, 1884. 8vo.
- CULLEN, E. Isthmus of Darien Ship Canal ; with a full history of the Scotch colony of Darien. 2nd edition. Lond. 1853. 8vo.
- Letters on the Isthmus of Darien Ship Canal, with Commander Prevost's report, showing the results of the Darien expedition of . . . 1854. *Tract. 8vo. vol. 112.* Lond. 1857. 8vo.
- Over Darien by a Ship Canal : reports of the mismanaged Darien expedition of 1854. *Tract. 8vo. vol. 112.* Lond. 1856. 8vo.
- CULLEN, E. A. Tide-tables for the Port of Brisbane . . . for . . . 1892. Brisbane, 1892. 8vo.
- CULLEN, W. A practical treatise on the construction of the Turbine, or horizontal Water-wheel. *Tract. 4to. vol. 52.* Lond. 1860. 4to.
- — 2nd edition, enlarged. Lond. 1871. 8vo.
- CULLEN BULLEN COAL AND COKE COMPANY, LIMITED. Directors' reports, 1889–90. Sydney, 1889–90. folio.

- CULLEY, R. S. A Handbook of practical Telegraphy. *Lond.* 1863. 8vo.
- — 5th edition. *Lond.* 1871. 8vo.
- — 8th edition. *Lond.* 1885. 8vo.
- Lectures on the construction and maintenance of Telegraph Lines. *Tract.* 8vo. vol. 243. *Woolwich*, 1869. 8vo.
- CULLUM, G. W. In memoriam, Brevet Brigadier General C. S. Merchant, U.S.A. West Point Alumni annual reunion. *Tract.* 8vo. vol. 333. 1880. 8vo.
- Register of the officers and graduates of the U.S. Military Academy, at West Point, N.Y., from March 16, 1802, to January 1, 1850. *Tract.* 8vo. vol. 120. *New York*, 1850. 8vo.
- Systems of Military Bridges in use by the United States Army, those adopted by the great European powers, and such as are employed in British India. 2nd edition. *New York*, 1869. 8vo.
- CULMANN, K. Die graphische Statik. *Zürich*, 1866. 8vo.
- — Zweite Auflage. *Leipzig*, 1875. 8vo.
- Druck kreisförmiger Tonnengewölbe auf ihre Lehrgerüste. *Tract.* 4to. vol. 68. [1871?] 4to.
- CUMBERLAND. A Bill to extend the Coal Mines Regulation Act, 1887, to the Iron Ore Mines of Cumberland and Lancashire. *Lond.* 1888. folio.
- CUMMING, A. Observations on the . . . effects which Carriage Wheels with rims of cylindrical and of conical shape have on the roads, and on the Labour of Cattle, *etc.* (Supplement.) *Lond.* 1809. 4to.
- CUMMING, J. A manual of Electro Dynamics, chiefly translated from the "Manuel d'électricité dynamique" of J. F. Demonferrand. *Cambridge*, 1827. 8vo.
- CUMMING, Rev. J. G. The Isle of Man: its history. *Lond.* 1848. 8vo.
- CUMMING, L. An introduction to the Theory of Electricity. 3rd edition. *Lond.* 1885. 8vo.
- CUMMING, T. G. Description of the iron Bridges of Suspension now erecting over the strait of Menai . . . and over the river Conway . . . Also some account of the different bridges of suspension in England and Scotland, *etc.* *Tract.* 8vo. vol. 14. *Lond.* 1824. 8vo.
- Illustrations of the origin and progress of Rail and Tram-roads and Steam-carriages, or Locomotive-Engines; also descriptive particulars of the principal railways in the United Kingdom, *etc.* *Tract.* 8vo. vols. 1 and 503. *Denbigh*, 1824. 8vo.
- CUNARD STEAMSHIP COMPANY. Official guide and album. *Lond.* 1878. 8vo.
- The Cunard Line and the World's Fair, Chicago, 1893. *Lond.* 1893. obl. 8vo.
- CUNDILL, J. P., Major. A Dictionary of Explosives. *Chatham*, 1889. 8vo.

- CUNDY, N. W. Imperial Ship Canal from London to Portsmouth.
Tract. 8vo. vol. 66. Lond. 1828. 8vo.
- Proposals for an equitable Reform in Taxation and Finance, *etc.*
Tract. 8vo. vol. 63. Lond. 1832. 8vo.
- Reports on the grand Ship Canal from London to Arundel Bay
and Portsmouth. *Tract. 8vo. vol. 76. Lond. 1827. 8vo.*
- CUNIN-GRIDAIN, L. Recueil officiel des ordonnances et instruc-
tions publiées sur la fabrication et la vérification des poids et
mesures. (Atlas of plates.) *Paris, 1839. 8vo. and 4to.*
- CUNNINGHAM, C. Minutes of a meeting relative to the construction
of the wet docks and other improvements at Leith. *Tract. 4to.*
vol. 34. Edinburgh, 1810. 4to.
- CUNNINGHAM, G. C. Energy and Labour. *Tract. 8vo. vol. 513.*
1892. 8vo.
- Snow Slides. *Tract. 8vo. vol. 454. Montreal, 1887. 8vo.*
- CUNNINGHAM, Sir ALEXANDER. Archæological survey of India:
four reports made during the years 1862–65. 2 vols.
Simla, 1871. 8vo.
- The Stupa of Bharhut, a Buddhist monument. *Lond. 1879. 4to.*
- CUNNINGHAM, ALLAN, Capt., R.E. Applied Mechanics.
Roorkee, 1876. 8vo.
- Engineering tracts from Professional papers on Indian engineering.
Roorkee, 1871–81. 8vo.
- On Well Foundations. *Tract. 8vo. vol. 237. 1873. 8vo.*
- Report containing an Essay on the theory of the Braced Arch,
with application to the proposed bridge at Sukkur. *Tract. folio.*
vol. 27. Lond. 1878. folio.
- Report on the Water-supply of Lucknow city.
Lucknow, 1884. 8vo.
- Roorkee Hydraulic Experiments. 3 vols. in 1.
Roorkee, 1881. 8vo.
- CUNNINGHAM, D. Conditions of social well-being: or, inquiries into
the material and moral position of the populations of Europe and
America. *Lond. 1878. 8vo.*
- Evidence before the committee of the House of Commons, on the
Manchester Ship Canal Bill, 1st July, 1885. *Tract. folio. vol. 37.*
Dundee, [1885.] folio.
- The river Tay. Report, December, 1887. *Tract. 4to. vol. 107.*
Dundee, 1887. 4to.
- Tables for facilitating the Calculation of Earthwork.
Lond. 1865. 8vo.
- CUNNINGHAM, P. On the Motions of the Earth and Heavenly
Bodies, as explained by electro-magnetic attraction and repulsion,
and on the conception, growth, and decay of man . . . as referable
to galvanic action. *Lond. 1834. 8vo.*
- CUNNINGTON, T. C. Fire-proof Flooring. *Tract. 8vo. vol. 476.*
Lond. 1889. 8vo.

- CUNTZ, F. Die Wasserversorgung der Stadt Karlsbad. *Tract.* 8vo. vol. 378. Vienna, 1883. 8vo.
- CUNYNGHAME, H. A treatise on the Law of Electric Lighting. Lond. 1883. 8vo.
- CUPPARI, G. Acte de concession de terrains pour dessèchements en Italie à une compagnie hollandaise. *Tract.* 4to. vol. 115. 's Gravenhage, 1893. 4to.
- Sui risultati pratici di varie macchine idrofore applicate in Olanda. Torino, 1883. 8vo.
- Sulle osservazioni atmometriche e sull' uso che può farne l' ingegnere. *Tract.* 8vo. vol. 473. Torino, 1888. 8vo.
- CURANT, B. Zahnradbahnen im Allgemeinen. Modificirtes Zahnradbahn System. Wien, 1882. 4to.
- CURIE, J. Trois notes sur la théorie de la poussée de terres. *Tract.* 8vo. vol. 237. Paris, 1873. 8vo.
- CURR, J. The Coal viewer and Engine builder's practical companion. *Tract.* 4to. vol. 3. Sheffield, 1797. 4to.
- Railway Locomotion, and Steam Navigation; their principles and practice. Lond. 1847. 8vo.
- Review of the reviewers [of the preceding]. Lond. 1847. 8vo.
- CURRIE SCHOOLS, Folkestone. [Prospectus.] *Tract.* 8vo. vol. 508. Folkestone, 1892. 8vo.
- — [Another edition.] *Tract.* 8vo. vol. 508. Folkestone, 1892. 8vo.
- CURTIS, —, Alderman. Manchester City Council. The Thirlmere Water Supply Scheme. 1878. See KING, —, Alderman, and CURTIS, —, Alderman.
- CURTIS, C. B. Invasion of the waters of the Colne by the proposed London and Westminster Water Company. *Tract.* 8vo. vol. 78. Lond. 1841. 8vo.
- Particulars of a method . . . for obviating collisions between successive trains. *Tract.* 8vo. vol. 79. Lond. [1841.] 8vo.
- CURTIS, C. E. Valuation of Property (corporeal and incorporeal). Lond. 1891. 8vo.
- CURTIS, J. G. C. Report on the subject of Durand's patent for an Improvement in the manufacture of Chain Cables. *Tract.* 4to. vol. 50. Lond. 1861. 4to.
- Report to the Norwich Navigation Improvement Committee, on the Norwich and Yarmouth Navigation. Lond. 1846. 4to.
- Tables for correcting Lunar Distances. Lond. 1836. 8vo.
- CURTIS and HARVEY. Papers respecting the extra-strong Mining Powder referred to by Prof. Abel. *Tract.* 4to. vol. 84. [1874-79.] 4to.
- CURTIS, J. P. Report on the drainage of Stapleton, County of Gloucester. *Tract.* 8vo. vol. 351. Bristol, 1880. 8vo.
- CURTIS, J. S. Silver-Lead Deposits of Eureka, Nevada. [U.S. Geol. Survey. Monograph VII.] Washington, 1884. 4to.

CURTIS, R. H. On the working of the Harmonic Analyser at the Meteorological Office. 1886. See SCOTT, R. H., and CURTIS, R. H.

CURTIS, T. A. State of the question of Steam-Communication with India *viâ* the Red Sea, *etc.* *Tract. 8vo. vol. 84.*

Lond. 1839. 8vo.

CURTIS, W. J. Curtis's inventions for Railways and Steam-vessels. *Tract. 8vo. vol. 294.*

Lond. 1840. 8vo.

CUSHING, T. On a new form of Levelling Instrument. *Tract. 8vo. vol. 313.*

1879. 8vo.

CUST, Sir E. On the rebuilding of the Houses of Parliament. See HOPPER, T. Hopper *versus* Cust, *etc.* 1837.

CUTHBERT, E. Sanitary Regulations and rules for house drainage. *Christchurch*, 1884. 4to.

CUTHBERT, E., and FERGUSON, W. Report on the Sewage of the city of Wellington. *Tract. folio. vol. 46.*

Wellington, N.Z., 1890. folio.

CUTHBERTSON, J. Practical Electricity and Galvanism.

Lond. 1821. 8vo.

CUTLER, H. A., and EDGE, F. J. Tables for setting out Curves from 101 feet to 5,000 feet radius.

Lond. 1885. 8vo.

CUTLER, W. H. The best means of utilizing Water Power and the best form of Turbine water wheel. *Tract. 8vo. vol. 314.*

Westminster, [1879.] 8vo.

CUTTER, C. A. Rules for a Dictionary Catalogue. 2nd edition. With corrections and additions.

Washington, 1889. 8vo.

CUYPER, C. DE. L'enseignement technique supérieur dans l'empire d'Allemagne.

Liège, 1875. 8vo.

CYMMER, *Glamorganshire*. Report by Maj. Majendie on a Dynamite Explosion at Cymmer.

Lond. 1876. folio.

CYPRUS. Reports by Her Majesty's High Commissioner, for 1880-87.

Lond. 1881-88. folio and 8vo.

— Reports made to the Admiralty on the Anchorages, *etc.*, of the island of Cyprus.

Lond. 1879. folio.

— Report by the Government Engineer on the Locust Campaign, 1883 to 1886-7.

Lond. 1883-88. folio.

CZERWENKA, F. J. V. Die hydrometrische Waage in ihrem Principe, Wesen und Gebrauche. Zweite Auflage. *Tract. 8vo. vol. 313.*

Wien, 1879. 8vo.

D.

- DABBADIE, M. An impartial view of the Royal Canal Company's affairs, in reply to the report of their committee. *Tract. 8vo. vol. 10. Dublin, 1812. 8vo.*
- DABOVICH, P. E. Nautisch-technisches Wörterbuch der Marine: deutsch, italienisch, französisch und englisch, etc. *Pola, 1883. 8vo.*
- DACOSTA, J. Facts and fallacies regarding Irrigation as a prevention of Famine in India. *Tract. 8vo. vol. 332. Lond. 1878. 8vo.*
- DADDOW, S. H., and BANNAN, B. Coal, Iron, and Oil; or, the practical American miner. *Pottsville, Pa., 1866. 8vo.*
- DAFT ELECTRIC LIGHT COMPANY. Distributory Electrical Power Plants, Daft system. *New York, 1888. 4to.*
- Statistics and notices of the Daft Electric Railways in operation in the United States. *Tract. 8vo. vol. 458. New York, 1887, 88. 8vo.*
- DAFT, T. B. Steam Raft. *Tract. 8vo. vol. 111. Lond. 1855. 8vo.*
- DAGENHAM BREACH. An impartial account of the frauds and abuses at Dagenham Breach and of the hardships sustained by Mr. William Boswell, late undertaker of the works there. *Lond. 1717. 8vo.*
- DAGINCOURT, E. Annuaire géologique universel. See PERIODICAL PUBLICATIONS.
- DAHLANDER, G. R. Om den tekniska undervisningen i några af Europas länder. *Tract. 8vo. vol. 385. Göteborg, 1866. 8vo.*
- On the Technical Instruction in some of the countries of Europe. Translated by C. P. Sandberg. [MS.] *Tract. folio. vol. 36. 1866. folio.*
- DAHLBERG, E. Suecia antiqua et hodierna. 3 vols. *Stockholm, [circa 1700.] folio.*
- Beskrifning öfver städer, egendomar, minnesmärken, m.m., upptagne uti E. Dahlbergs Suecia antiqua et hodierna. *Stockholm, [1856.] obl. folio.*
- DAHLGREN, C. B. Historic Mines of Mexico. *New York, 1883. 8vo.*
- DAHLGREN, J. A. Shells and Shell-Guns. *Philadelphia, 1857. 8vo.*
- DAIGREMONT, J. Étude sur les chemins de fer atmosphériques. *Tract. 4to. vol. 62. Turin, 1865. 4to.*
- DAKIN, T. Correspondence relative to the Supply of Gas by the Great Central Gas Consumers Company. *Tract. 8vo. vol. 224. Lond. 1853. 8vo.*
- DAKOTA. Report of a Reconnaissance of the Black Hills of Dakota made in 1874, by W. Ludlow. *Washington, 1875. 4to.*

- DAKOTA—*continued.*—*School of Mines.* Preliminary report upon the Geology, mineral resources and mills of the Black Hills of Dakota. *Rapid City*, 1888. 8vo.
- DALBY, J. An account of the operations carried on for accomplishing a Trigonometrical Survey in England and Wales. 1779, *etc.* See MUDGE, W., *Lieut.-Col., B.A.*, and DALBY, J.
- DALE, R. Notes of an excursion to the Isthmus of Tehuantepec, in the Republic of Mexico. *Lond.* 1851. 8vo.
- DALE, S. The History and Antiquities of Harwich and Dovercourt. *Lond.* 1730. 8vo.
- DALE, T. On the Supply of Water to the Lancashire and Yorkshire towns, from the lake districts of Cumberland and Westmoreland. *Tract.* 8vo. vol. 151. *Lond.* 1866. 8vo.
- Report on the Hull Water direct Supply. *Tract.* 8vo. vol. 215. *Hull*, 1871. 8vo.
- Report on the proposed additional works for supplying the town with Water direct from Spring-Head. *Tract.* 8vo. vol. 215. *Hull*, 1871. 8vo.
- The Struggles of Genius: a lecture delivered at the Mechanics' Institute, Hull. *Tract.* 8vo. vol. 183. *Hull*, 1869. 8vo.
- DALE DYKE. Reports of the Engineers on Dale Dyke Reservoirs. *Lond.* 1865. folio.
- Report of the Engineers employed to report on the Dale Dyke and Agden Reservoirs. Correspondence in regard to the Sheffield Reservoirs and the Government Waterworks Bill and of any other Reports and Correspondence. *Lond.* 1866. folio.
- DALHOUSIE, *Marquis of*. [J. A. BROWN-RAMSBAY.] Minute by . . . the Governor General of India: [a brief review of the period of his administration, 1848–56. Records of the Government of India (Home Dep.) No. 14.] *Calcutta*, 1856. 8vo.
- DALHOUSIE COLLEGE, *Halifax, N.S.* Calendar, 1887–8, (1888–9, 1889–90.) *Halifax*, 1887–89. 8vo.
- DALL, W. H. List of Marine Mollusca, comprising the Quaternary Fossils and recent forms from American localities between Cape Hatteras and Cape Roque, including the Bermudas. [*U.S. Geol. Survey.* Bulletin No. 24.] *Washington*, 1885. 8vo.
- DALL, W. H., and HARRIS, G. D. Correlation Papers—Neocene. [*U.S. Geol. Survey.* Bulletin No. 84.] *Washington*, 1891. 8vo.
- DALLAS, W. L. Memoir on the Winds and Monsoons of the Arabian Sea and North Indian Ocean. *Tract.* folio. vol. 42. *Calcutta*, 1887. folio.
- DALLAWAY, Rev. J. Observations on English Architecture . . . compared with similar buildings on the continent; including a critical itinerary of Oxford and Cambridge; also historical notices of stained-glass, ornamental gardening, *etc.* *Lond.* 1806. 8vo.
- DALLET, G. La navigation aérienne. *Tract.* 8vo. vol. 429. *Paris*, [1886?] 8vo.

- DALMANN, J. Ueber Stromcorrectionen im Fluthgebiet.
Hamburg, 1856. 4to.
- DALTON, J. A new system of Chemical Philosophy. Part 1 of
vol. 2. *Manchester*, 1827. 8vo.
- — Part 1. 2nd edition. *Lond.* 1842. 8vo.
- Meteorological Observations and essays. 2nd edition.
Manchester, 1834. 8vo.
- On the Microcosmic Salt, acids, bases, and water ; and a new and
easy method of analysing Sugar. *Tract.* 8vo. vol. 115.
Manchester, 1840-42. 8vo.
- DALY, C. Des concours pour les monuments publics dans le passé, le
présent, et l'avenir. *Tract.* 4to. vol. 50. *Paris*, 1861. 4to.
- Revue générale de l'architecture et des travaux publics.
See PERIODICAL PUBLICATIONS.
- DAMMERT, A. H. Auszug aus einem Berichte über einen Aufent-
halt in England zur Besichtigung der dortigen Eisenbahnen.
Tract. 8vo. vol. 257. *Hannover*, 1841. 8vo.
- DAMON, R. Geology of Weymouth and the island of Portland.
Lond. 1860. 12mo.
- DAMOUR, E. Étude sur le nouveau four Siemens, et sur l'utilisation
de la chaleur dans les fours à régénération. *Tract.* 8vo. vol. 530.
Paris, 1893. 8vo.
- DANA, E. S. A Crystallographic Study of the Thimolite of Lake
Lahontan. [*U.S. Geol. Survey.* Bulletin No. 12.]
Washington, 1884. 8vo.
- DANA, J. D. Corals and Coral Islands. *New York*, 1879. 8vo.
- Manual of Geology : treating of the principles of the science with
special reference to American geological history. Revised [2nd]
edition. *Philadelphia*, 1869. 8vo.
- — 3rd edition. *New York*, [1879.] 8vo.
- Manual of Mineralogy : including observations . . . on the
applications of the science to the Arts. New edition, etc.
Lond. 1867. 8vo.
- Manual of Mineralogy and Lithology, etc. 3rd edition.
New York, 1882. 8vo.
- A text-book of Geology. *Philadelphia*, 1869. 12mo.
- DANA, J. D., and BRUSH, G. J. A System of Mineralogy, compris-
ing the most recent discoveries. 5th edition.
Lond. 1868. 8vo.
- DANA, R. H. The Ether Discovery. [No. 201 of "Littell's Living
Age."] *Tract.* 8vo. vol. 85. *Boston*, 1848. 8vo.
- DANCHELL, F. H. Concerning Sewage and its economical disposal.
Tract. 8vo. vol. 259. *Lond.* 1872. 8vo.
- Town Sewage : a new process of turning sewage deposit to
profitable account by converting it into charcoal. *Tract.* 8vo.
vol. 438. *Maidstone*, [1886?] 8vo.

- DANIELL, J. F. *Elements of Meteorology*; being the third edition, revised and enlarged, of *Meteorological Essays*. 2 vols.
Lond. 1845. 8vo.
- *An introduction to the study of Chemical Philosophy.*
Lond. [1839.] 8vo.
- DANNEMORA. *Description des mines à Dannemora.* *Tract.* 8vo.
vol. 78. *Upsala,* 1841. 8vo.
- DANSON, J. T. *Our next War: a word on War Premiums and on the Underwriting of 1805 and 1808.* *Tract.* 8vo. *vol.* 513.
Lond. 1893. 8vo.
- DANSON, J. T., and DEMPSEY, G. D. *The Inventor's Manual: a familiar and practical treatise of the law of patents for inventions.*
Lond. 1843. 8vo.
- DANUBE, *River.* *Bericht und Anträge des von der Commission für die Donauregulirung bei Wien ernannten Comités.*
Wien, 1868. 8vo.
- *Donau-Regulirungs Commission. Die Donau-Regulirung bei Wien.*
Wien, 1875. 8vo.
- *Donau-Verein. Actenstücke zur Regulirung der Stromschnellen der Donau zwischen Moldava und Turn-Severn.* *Wien,* 1880. 4to.
- *Mémoire sur l'achèvement des travaux d'amélioration exécutés aux embouchures du Danube par la Commission Européenne [d'après les projets de Sir C. H. Hartley]. (Atlas of plates.)*
Leipzig, 1873-74. 4to. and folio.
- *Mémoire sur les travaux d'amélioration du cours du Bas-Danube . . . par la Commission européenne. 3 vols. (Atlases of plates.)*
Galatz, 1865-88. 4to. and folio.
- *Plan der Donau-Regulirung bei Wien.* *Tract.* 4to. *vol.* 71.
Wien, [1870?] 4to.
- *Projets pour l'amélioration de la navigabilité du Bas-Danube. [Commission européenne du Danube.]* *Leipzig,* [1857.] 4to.
- *Protocolle des "Donau-Vereines" über die am 16 December 1879 und 22 Januar 1880, stattgehabten Plenar-Versammlungen.* *Tract.* 8vo. *vol.* 322.
Wien, 1880. 8vo.
- *Rapport présenté par la Commission d'expertise, instituée par la haute Commission de régularisation du Danube, pour l'examen des projets de détail de la transformation du Donau-Canal en un port de commerce et d'hiver. [Gutachten, etc. Fr. and Ger.]*
Tract. folio. vol. 48. *Vienne,* 1893. folio.
- *Report on the improvements made in the Navigation of the River Danube since 1856.*
Lond. 1872. folio.
- DANUBE AND BLACK SEA RAILWAY. *Danube and Black Sea Railway and Kustendjie Harbour Company. Report of the Committee appointed to proceed to Kustendjie on the occasion of the opening of the line, on the 4th October, 1860.* *Tract.* 8vo.
vol. 138. *Lond.* 1860. 8vo.
- DANVERS, F. C. *Engineering in India.* *Tract.* 8vo. *vol.* 182.
Lond. 1868. 8vo.

- DANVERS, F. C.—*continued*. India. *Tract. 8vo. vol. 355.*
London, 1877. 8vo.
- Memorandum on Coal-washing, and the manufacture of artificial fuel. *Tract. folio. vol. 9.* *London, 1869. folio.*
- Memorandum on Indian Coals, with reference to their employment as fuel for Indian railways and steamers. *Tract. folio. vol. 9.*
London, 1867. folio.
- On Coal : with reference to its screening, transport, etc.
London, 1872. 8vo.
- DANZIG. Wasserleitung, Kanalisation und Rieselfelder von Danzig.
Danzig, 1881. 8vo.
- DAPHNE, *Steamer*. Report on the "Daphne" Disaster ; by Sir E. J. Reed.
London, 1883. folio.
- DAPPLES, E. Étude sur l'application des forces hydrauliques à l'exploitation des chemins de fer de montagne, et en particulier sur les chemins de fer pneumatiques. *Tract. 8vo. vol. 157.*
Lausanne, 1866. 8vo.
- Le matériel roulant des chemins de fer au point de vue du confort et de la sécurité des voyageurs. Moyens d'intercommunication proposés, etc. *Tract. 8vo. vol. 157. Lausanne, 1866. 8vo.*
- DARAPSKY, *Capt.* Die potenzirten Krafftleistungen der modernen Artillerie in ihrer Abhängigkeit von künstlichen Metall-Construktionen der Geschützrohre. *Tract. 8vo. vol. 271.*
Cassel, 1870. 8vo.
- DARBYSHIRE, G. C. Tables for setting out Railway Curves.
Derby, 1846. 4to.
- DARCEL, J. Notice . . . sur E. Vaudrey. *See ROUSELLE, H., and DARCEL, J. 1877.*
- DARCEL, M. Mémoire sur l'éclairage des villes. *Tract. 8vo. vol. 308.*
(From the "Annales des Ponts et Chaussées.") Paris, 1878. 8vo.
- DARCY, H. Les fontaines publiques de la ville de Dijon. Exposition et application des principes à suivre et des formules à employer dans les questions de distribution d'eau. (Atlas of plates.)
Paris, 1856. 4to.
- Rapport à M. le ministre des travaux publics, sur le pavage et le macadamisage des chaussées de Londres et de Paris.
Paris, 1850. 8vo.
- Recherches expérimentales relatives au mouvement de l'eau dans les tuyaux.
Paris, 1857. 4to.
- DARCY H., and BAZIN, H. Recherches hydrauliques. Pt. 1. Recherches expérimentales sur l'écoulement de l'eau dans les canaux découverts. Pt. 2. Recherches expérimentales relatives aux remous et à la propagation des ondes. Atlas of plates.
Paris, 1865. 4to.
- DARIEN CANAL. Canal inter-océanique, sans écluses ni tunnels à travers le territoire du Darien entre les golfes d'Uraba et de San Miguel, 1876. *Tract. 8vo. vol. 439.* *Paris, 1876. 8vo.*

- DARIEN CANAL**—*continued*. A Darien v. the Suez Canal. [By T. H. Buckler.] *Tract*. 8vo. vol. 483. Paris, 1876. 8vo.
- Report of a Survey for an Inter-oceanic Ship Canal near the Isthmus of Darien. By Lieut. N. Michler. (Atlas of plates.) Washington, 1861. 8vo.
- Report of Explorations and Surveys to ascertain the practicability of a Ship Canal between the Atlantic and Pacific Oceans by the way of the Isthmus of Darien: by Commander T. O. Selfridge. Washington, 1874. 4to.
- DARLEY, C. W.** Notes on drilling and boring of Artesian Wells. Sydney, 1884. 8vo.
- Notes on the use, construction and cost of "Service" Reservoirs in New South Wales. *Tract*. 8vo. vol. 514. (From Proc. Roy. Soc. N.S.W.) [Sydney, 1891.] 8vo.
- DARLEY MAIN COLLIERY.** Reports on the Explosion in the . . . Colliery. Lond. 1849. folio.
- DARLING, River.** Report on the Utilisation of the River Darling: by H. G. McKinney and F. W. Ward, etc. Sydney, 1893. folio.
- DARLINGTON.** Gas and Water Supply Act. Lond. 1849. folio.
- DARLINGTON, F. A.** Notes on Gas Manufacture. *Tract*. folio. vol. 41. [Lond.] 1887. folio.
- DARLINGTON, J.** Bornhardt's patent Electrical Firing machine. *Tract*. 4to. vol. 84. [1879?] 4to.
- On the application of Rock-Boring Machinery and Explosives in Mining. *Tract*. 8vo. vol. 312. Lond. 1879. 8vo.
- Records of Mining and Metallurgy. 1857. See PHILLIPS, J. A., and DARLINGTON, J.
- DARLOW, F. W.** Magnetine; or, the application of Magnetism to the cure and alleviation of Disease. *Tract*. 8vo. vol. 268. Lond. 1876. 8vo.
- DARTFORD.** Report on the Explosion of Gunpowder at Dartford. Lond. 1879. folio.
- Report by Col. V. D. Majendie on the circumstances attending an Explosion at the Gunpowder Factory of Messrs. Pigou, Wilks and Laurence on the 21st August, 1885. Lond. 1886. folio.
- DARTMOUTH HARBOUR.** Statement and map showing the advantages of Dartmouth as a port for the departure and arrival of mails, etc. *Tract*. folio. vol. 24. Dartmouth, 1864. folio.
- DARTON, N. H.** Bibliography of North American Geology for 1886. [U.S. Geol. Survey. Bulletin No. 44.] Washington, 1887. 8vo.
- Record of North American Geology for 1887-91. [U.S. Geol. Survey. Bulletin Nos. 75, 91 and 99.] Washington, 1891-92. 8vo.
- The relations of the Traps of the Newark System in the New Jersey Region. [U.S. Geol. Survey. Bulletin No. 67.] Washington, 1890. 8vo.

- DARWEN. Report of the Surveying Officers, and Minutes of Evidence on the Darwen Waterworks and Reservoirs Bill.
Lond. 1847. folio.
- DARWIN, C. Geological observations on Coral Reefs, volcanic islands, and on South America : being the geology of the voyage of the "Beagle," under the command of Captain Fitzroy, R.N., during the years 1832 to 1836.
Lond. 1851. 8vo.
- DARY, G. L'électricité dans la nature. [Bibliothèque internationale d'électricité et de ses applications.]
Paris, 1892. 8vo.
- La navigation électrique. *Tract.* 8vo. vol. 337.
Paris, 1882. 8vo.
- Tout par l'électricité.
Tours, 1883. 8vo.
- DASSY, G. F. Notes on Sueis and its trade with the ports of the Red Sea. *Tract.* 8vo. vol. 261. *Constantinople*, 1859. 8vo.
- DAVAINE, E. N. Mémoire sur un nouveau mode de construction de la vis d'Archimède, etc.
Lille, 1846. 8vo.
- DAVENPORT, J. A new Dictionary of the English and Italian Languages. 1873. See COMELATI, G., and DAVENPORT, J.
- DAVENPORT, J. I. Letter on the subject of the Population of the city of New York, its density and the evils resulting therefrom. *Tract.* 8vo. vol. 435. 1884. 8vo.
- DAVEY, H. A description of the differential expansive Pumping Engine. *Tract.* 8vo. vol. 392. *Lond.* 1880. 8vo.
- On Mining Machinery. *Tract.* 8vo. vol. 466. *Lond.* 1882. 8vo.
- On Water-pressure Engines for mining purposes. *Tract.* 8vo. vol. 324. [*Lond.* 1880.] 8vo.
- DAVEY, JAMES. A set of Tables showing the difference of the standard at which Copper Ores of various produces usually sell in Cornwall. 2nd edition, with an appendix. *Redruth*, 1845. 4to.
- DAVEY, Dr. JOHN. A description of Adam's Peak, Ceylon. *Tract.* 8vo. vol. 26. *Lond.* 1818. 8vo.
- DAVEY, PAXMAN & Co. Illustrations and description of Engines and Boilers driving the electric light machinery in the Colonial and Indian Exhibition, 1886. *Tract.* 8vo. vol. 422.
Lond. 1886. 8vo.
- DAVID, —. Coin élastique en acier. *Tract.* 4to. vol. 118.
Saint-Chamond, 1889. 4to.
- DAVIDSON, E., Capt., R.E. The Railways of India, etc.
Lond. 1868. 8vo.
- DAVIDSON, J. A system of Practical Mathematics.
Edinburgh, 1817. 8vo.
- DAVIES, D. C. A treatise on Earthy and other Minerals and Mining.
Lond. 1884. 8vo.
- A treatise on Metalliferous Minerals and Mining.
Lond. 1880. 8vo.
- A treatise on Slate and Slate Quarrying.
Lond. 1878. 8vo.

- DAVIES, E. H. *Machinery for Metalliferous Mines: a practical treatise for mining engineers, etc.* *Lond.* 1894. 8vo.
- DAVIES, E. J. M. *Solutions to questions given at the extra first-class Engineers' Examinations of the Board of Trade during the last ten years.* *Lond.* 1891. 8vo.
- DAVIES, G. C. *The Handbook to the Rivers and Broads of Norfolk and Suffolk.* 9th edition. *Lond.* 1887. 8vo.
- — 18th edition. *Lond.* [1891.] 8vo.
- DAVIES, H. *The Pumping Machinery for the Hunter River district water supply.* *Tract. folio. vol. 33.* *Sydney,* 1883. folio.
- DAVIES, J. and RYDER, G. V. *On the system of Warming Buildings by Hot Water, being a reply to Mr. Perkins' "Answer" to the report presented to the Manchester Assurance Company, with a report by Mr. W. Fairbairn on the same subject.* *Tract. 8vo. vol. 58.* *Manchester,* 1841. 8vo.
- DAVIES, Rev. J. S. *A history of Southampton.* *Southampton,* 1883. 4to.
- DAVIES, P. J. *Standard practical Plumbing.* Vol. 1. *Lond.* 1885. 4to.
- DAVIES, T. *On Wrought and Cast-iron Beams.* *Tract. 8vo. vol. 101.* *Edinburgh,* 1856. 8vo.
- DAVIS, A. T. *Stratford-on-Avon Sewerage and Sewage Disposal.* *Tract. 8vo. vol. 407.* [1886.] 8vo.
- DAVIS, C. H. *Narrative of the North Polar Expedition, U.S. ship "Polaris," Captain Hall commanding.* *Washington,* 1876. 8vo.
- *Report to the Secretary of the Navy in relation to the various proposed lines for Interoceanic Canals and Railroads between the waters of the Atlantic and Pacific Oceans.* *Washington,* 1866. 8vo.
- DAVIS, C. H., and RAE, F. B. *Handbook of Electrical Diagrams and connections.* *New York,* 1876. 8vo.
- DAVIS, C. T. *A practical treatise on the manufacture of Bricks, Tiles, terra-cotta, etc.* *Philadelphia,* 1884. 8vo.
- *A treatise on Steam-boiler Incrustation and methods for preventing corrosion and the formation of scale.* *Lond.* 1884. 8vo.
- DAVIS, D. L. *Improved method of confining India-rubber, or other elastic bearings, for railroad chairs and rails.* *Tract. 8vo. vol. 117.* *Boston,* 1856. 8vo.
- DAVIS, G. E. *The Distillation of Coal and recovery of hydrocarbons from the gas.* *Tract. 8vo. vol. 413.* *Manchester,* 1884. 8vo.
- DAVIS, G. G. *Ligeros apuntes sobre el clima de la República Argentina.* *Buenos Aires,* 1889. 4to.
- DAVIS, H. *A reply to Lord Wharnccliffe's letter on Draining, in the Royal Agricultural Society's Journal, 1851.* *Tract. 8vo. vol. 217.* *Lond.* 1851. 8vo.
- *Farming Essays (third series).* *Tract. 8vo. vol. 217.* *Lond.* 1855. 8vo.

- DAVIS, JAMES. On the manufacture of Basic open-hearth Steel. *Tract. 8vo. vol. 530. Middlesbrough, 1891. 8vo.*
- DAVIS, JOHN. Historical records of the 2nd Royal Surrey, or Eleventh Regiment of militia. *Lond. 1877. 8vo.*
- DAVIS, JOHN W. Formulæ for the calculation of Railroad Excavation and embankment and for finding average haul. *New York, 1877. 8vo.*
- DAVIS, M. M. The Quadruplex. 1885. *See MAVER, W., and DAVIS, M. M.*
- DAVIS, T. H. Notes on the Corrosion of Iron and Steel, especially of iron and steel ships. *Tract. 8vo. vol. 409. Liverpool, 1886. 8vo.*
- DAVIS, W. A treatise on Land-Surveying, by the chain, cross, and offset staffs: also, a description of the plan and map meters. 6th edition. *Lond. 1816. 8vo.*
- DAVISON, R., and SYMINGTON, W. Description of Cask-cleansing and purifying process. *Tract. 8vo. vol. 62. Lond. 1846. 8vo.*
- DAVISON, S. The discovery and geognosy of Gold Deposits in Australia; with comparisons and accounts of the gold regions in California, Russia, India, Brazil, etc. *Lond. 1860. 8vo.*
- DAVOUT D'ECKMUHL, A. L., *Marquise de Blocqueville. See BLOCQUEVILLE, Marquise de.*
- DAVY, C. The Architect, Engineer, and Operative Builder's Constructive Manual. . . 2nd edition. *Lond. 1839. 8vo.*
- DAVY, Sir H. Collected Works. Edited by his brother, J. Davy:—
- Vol. 1. Memoir of the life of Sir Humphry Davy, Bart. *Lond. 1830. 8vo.*
 - Vol. 2. Early miscellaneous papers from 1799 to 1805: with an introductory lecture, and outlines of lectures on chemistry, delivered in 1802 and 1804. *Lond. 1839. 8vo.*
 - Vol. 3. Researches, chemical and philosophical; chiefly concerning nitrous oxide or dephlogisticated nitrous air, and its respiration. *Lond. 1839. 8vo.*
 - Vol. 4. Elements of chemical philosophy: as regards the laws of chemical changes: undecompounded bodies and their primary combinations. *Lond. 1839. 8vo.*
 - Vol. 5. Bakerian-lectures and miscellaneous papers from 1806 to 1815. *Lond. 1840. 8vo.*
 - Vol. 6. Miscellaneous papers and researches, especially on the safety lamp and flame, and on the protection of the copper sheathing of ships, from 1815 to 1828. *Lond. 1840. 8vo.*
 - Vols. 7 and 8. Discourses delivered before the Royal Society, and the Board of Agriculture. Elements of Agricultural Chemistry. *Lond. 1840. 8vo.*
 - Vol. 9. Salmonia, or days of fly-fishing; in a series of conversations: with some account of the habits of fishes belonging to the genus salmo.—Consolation in travel, or, the last days of a philosopher. *Lond. 1840. 8vo.*

- DAVY, *Sir H.*—*continued.* An account of some Galvanic Combinations, formed by the arrangement of single metallic plates and fluids. *Tract.* 4to. vol. 19. *Lond.* 1801. 4to.
(From the Phil. Trans.)
- The Bakerian lecture on some Chemical Agencies of Electricity. *Tract.* 4to. vol. 19. (From the Phil. Trans.) *Lond.* 1807. 4to.
- Elements of Agricultural Chemistry. *Lond.* 1813. 4to.
- On the Safety Lamp for coal-miners ; with some researches on flame. *Tract.* 8vo. vol. 45. *Lond.* 1818. 8vo.
- Six discourses delivered before the Royal Society at their anniversary meetings, on the award of the Royal and Copley medals ; preceded by an address to the Society, on the progress and prospects of science. *Tract.* 4to. vol. 56. *Lond.* 1827. 4to.
- DAVY, M. See *MARIÉ-DAVY, H.*
- DAWBARN, G. On the Flooding of Rivers and formation of Conservancy Boards. *Tract.* 8vo. vol. 291. *Wisbech,* 1878. 8vo.
- DAWES, *Rev. R.* Lessons on the phenomena of Industrial Life, and the conditions of industrial success. *Lond.* 1854. 8vo.
- DAWKINS, *Prof. W. B.* Inaugural address to the Manchester Geological Society. *Tract.* 8vo. vol. 253. *Manchester,* 1874. 8vo.
- Memorandum on the proposed Channel Tunnel. *Tract.* folio. vol. 44. 1883. folio.
- On some deposits of Apatite near Ottawa, Canada. *Tract.* 8vo. vol. 379. *Manchester,* 1884. 8vo.
- DAWNAY, A. D. A treatise upon Railway Signals and Accidents. *Tract.* 8vo. vol. 238. *Lond.* 1874. 8vo.
- DAWSON, A. English Landscape Art in the year 1877. *Tract.* 8vo. vol. 449. *Lond.* 1877. 8vo.
- DAWSON, G. J. C. A brief sketch of the Introduction of Railways into this country. *Tract.* 8vo. vol. 260. *Tamworth,* 1875. 8vo.
- Street Pavements ; a paper. *Tract.* 8vo. vol. 270. *Liverpool,* 1876. 8vo.
- Future prospects of the Civil Engineering Profession. *Tract.* 8vo. vol. 402. *Lond.* 1870. 8vo.
- DAWSON, *Sir G. M.* Comparative Vocabularies of the Indian Tribes of British Columbia. 1884. See *TOLMIE, W. F.,* and *DAWSON, Sir G. M.*
- Descriptive Sketch of the physical geography and geology of Canada. 1884. See *SELWYN, A. R. C.,* and *DAWSON, Sir G. M.*
- The Mineral Wealth of British Columbia. *Montreal,* 1888. 8vo.
- DAWSON, J. Canal Extensions in Ireland, recommended to the Imperial Legislature. *Tract.* 8vo. vol. 10. *Dublin,* 1819. 8vo.
- DAWSON, J. W. Fossil Plants of . . . Canada. 1871. See *CANADA.*—[*Geological Survey.*]

- DAWSON, R. Statement of services as chief agent of the Australian Agricultural Company; with a narrative of the treatment experienced from the late committee at Sydney, and the Board of Directors in London. With an Appendix containing Mr. J. M'Arthur's report to the committee. *Tract. 8vo. vol. 61.*
Lond. 1829. 8vo.
- DAWSON, S. J. Report on the exploration of the country between Lake Superior and the Red River Settlement.
Toronto, 1859. 4to.
- DAWSON, WILLIAM. Holyhead, and Roads to it, from Shrewsbury and Chester. *Tract. 8vo. vol. 4.* *Dublin, 1811. 8vo.*
- DAWSON, WILLIAM, *Commander, R.N.* Naval Guns and naval gunners. *Tract. 8vo. vol. 214.* *1872. 8vo.*
- Offensive Torpedo Warfare. *Tract. 8vo. vol. 271.*
Lond. 1871. 8vo.
- DAWSON, WILLIAM, *Engineer, of Exeter.* Sketches on the South Devon Railway. Part 1. *Exeter, [] folio.*
- Account . . . of Land-Slips on the east coast of Devon, etc. *See CONYBEARE, W. D., and DAWSON, W.*
- DAWSON, WILLIAM B. Rapid methods in Topographical Surveying. *Tract. 8vo. vol. 462.* *[New York,] 1882. 8vo.*
(From the Transactions of the American Society of Civil Engineers.)
- DAY, D. T. Mineral Resources of the United States, 1886, (1887, etc.). *[U.S. Geol. Survey.] Washington, 1887, etc. 8vo.*
- DAY, F. J., *Capt.* Catalogue of the Royal Engineers Corps Library. 1885. *See VETCH, R. H., and DAY, F. J.*
- DAY, J. A practical treatise on the Construction and formation of Railways. . . . 3rd edition. *Lond. 1848. 8vo.*
- DAY, M. S. Report of the Trigonometrical Survey of the Island of Hokkaido. *New York, 1876. 4to.*
- DAY, R. E. Electric Light Arithmetic. *Lond. 1882. 8vo.*
- Exercises in Electrical and Magnetic Measurement.
Lond. 1876. 8vo.
- — 3rd edition. *Lond. 1885. 8vo.*
- DAY, ST. J. V. On Asbestos, with special reference to its use as steam-engine "packing." *Tract. 8vo. vol. 220.*
Glasgow, 1872. 8vo.
- On certain points in the manufacture of Malleable Iron, with special reference to the Richardson process. *Tract. 8vo. vol. 164.*
Glasgow, 1868. 8vo.
(From "Trans. Inst. Engineers in Scotland.")
- On Patents for Inventions. *Glasgow, 1870. 8vo.*
- On some evidences as to the very early use of Iron, and on certain old bits of iron in particular. *Tract. 8vo. vol. 209.*
Edinburgh, 1871. 8vo.

- DAY, St. J. V.—*continued*. On some evidences as to the very early use of Iron. *Tract. 8vo. vol. 233.* *Edinburgh, 1873. 8vo.*
(Second Communication to the Philosophical Society of Glasgow.)
- On the high Antiquity of Iron and Steel. *Tract. 8vo. vol. 255.*
Lond. 1874. 8vo.
(Read before the Philosophical Society of Glasgow.)
- On the present state of some branches of Iron Metallurgy, *etc.* *Tract. 8vo. vol. 174.* *Glasgow, 1868. 8vo.*
- Papers on the Great Pyramid ; including a critical examination of Sir Henry James' "Notes on the Great Pyramid of Egypt." *Edinburgh, 1870. 8vo.*
- The prehistoric use of Iron and Steel, *etc.* *Lond. 1877. 8vo.*
- DAYMAN, J., *Lieut.-Commander, R.N.* Deep-sea Soundings in the North Atlantic Ocean, between Ireland and Newfoundland, made in H.M.S. Cyclops, in June and July, 1857. *Tract. 8vo. vol. 165.*
Lond. 1858. 8vo.
- DAYMARD, V. Mémoire sur de nouvelles courbes servant à représenter et à mesurer la stabilité statique des navires sous toutes les inclinaisons possibles. *Marseilles, 1883. 4to.*
- DAYTON AND CINCINNATI (SHORT LINE) RAILROAD.
Second annual report. *Tract. 8vo. vol. 123.*
Cincinnati, 1854. 8vo.
- DEACON, G. F. The constant Supply and Waste of Water. *Tract. 4to. vol. 92.* (From the Journ. Soc. Arts.) *Lond. 1882. 4to.*
- Note on the Glacial Geology of the Vyrnwy Valley. *Tract. 8vo. vol. 526.* *Liverpool, 1889. 8vo.*
- Waste-water Meter System. *Tract. folio. vol. 40.*
Lond. 1885. folio.
- [For Reports issued as Borough Engineer of Liverpool:] See LIVERPOOL.—[*Electric Light*], [*Tramways*], [*Water Supply*].
- DEACON, W. Remarks on Conical and Cylindrical Wheels, public roads, wheel carriages, *etc.* *Lond. 1808. 8vo.*
- — 2nd edition. *Lond. 1810. 8vo.*
- DEAKIN, A. Irrigated India: an Australian view of India and Ceylon, their Irrigation and Agriculture. *Lond. 1893. 8vo.*
- Irrigation in Western America, so far as it has relation to the circumstances of Victoria. *Tract. 8vo. vol. 417.*
Melbourne, 1885. 8vo.
- Water-supply and irrigation, Victoria. *Tract. 8vo. vol. 430.*
Melbourne, 1886. 8vo.
- DEAL. Proposals of Prices for . . . the erection and completion of a Building . . . in H.M. Naval Yard at Deal. *Tract. folio. vol. 49.* [*Lond. 1800?*] folio.
- Prospectus of the Deal Pier Company. *Tract. folio. vol. 49.*
Lond. 1837. folio.

- DEAN, G. A. A plea for an Arterial Drainage, Embankment, and improvement Act, *etc.* *Tract. 8vo. vol. 392.* *Stratford, 1861. 8vo.*
- DEAN LANE COLLIERY. Reports on the Dean Lane Colliery Explosion. *Lond. 1887. folio.*
- DEANE, A. Ceylon. *Tract. 8vo. vol. 355. Lond. 1875. 8vo.*
- DEANE, C. A. Submarine researches on the wrecks of H.M. late ships Royal George, Boyne, and others, in his improved diving apparatus; with an introductory account of the loss of the Royal George by two of her seamen, who are yet survivors of that awful catastrophe. *Tract. 8vo. vol. 65. Lond. 1836. 8vo.*
- DEANE, J. Manual of the History and Science of Firearms. *Lond. 1858. 8vo.*
- DEARN, T. D. W. An historical, topographical, and descriptive account of the Weald of Kent. *Cranbrook, 1814. 8vo.*
- DEARNE AND DOVE CANAL. An Act for making a Canal from the River Dun Navigation Cut in the Township of Swinton, to Barnsley, *etc.* *Lond. 1793. folio.*
- DEAS, J. The Clyde. *Glasgow, 1884. 8vo.*
- Clyde Navigation. Map and longitudinal section of the river Clyde; showing the greatest depths of the Channel in the years 1758, 1824, 1838, 1858, 1861, and 1871. *Glasgow, 1871. 8vo.*
- Clyde Navigation. Quarterly reports to the trustees. 1873, 1880, *etc.* *Glasgow, 1873, 80, etc. 8vo.*
- Clyde Navigation. Report as to results of Immersion of Metal Sheathing in harbour, 24 November, 1879. *Glasgow, 1879. 8vo.*
- Description of a Crane Seat, *etc.* *Tract. 8vo. vol. 528. [Glasgow, 1893.] 8vo.*
- Description of a new Dredging Plant [for the Clyde Navigation]. *Tract. 8vo. vol. 528. [Glasgow, 1892.] 8vo.*
- Description of the Gardner process of seasoning and preserving Timber. *Tract. 8vo. vol. 269. Glasgow, 1877. 8vo.*
(Read before the Philosophical Society of Glasgow.)
- On the Improvement of the Clyde above port Glasgow. *Tract. 8vo. vol. 455. (From Min. of Proc. Inst. Mech. Eng.) Lond. 1887. 8vo.*
- Plans of the Harbour of Glasgow and section of the river Clyde. (Maps in case.) *1876. folio.*
- Report on the deepening, widening, and improving the River Clyde under the jurisdiction of the Clyde trustees. *Tract. 8vo. vol. 406. Glasgow, 1885. 8vo.*
- Report on Tidal Velocities in River Clyde between Glasgow and Greenock. *Glasgow, 1884. 8vo.*
- The River Clyde: an historical description of the rise and progress of the harbour of Glasgow. *Glasgow, 1876. 8vo.*
- The River Clyde. *Tract. 4to. vol. 111. Lond. 1888. 4to.*
(From Trans. Inst. Nav. Arch.)
- The River Clyde and harbour of Glasgow. *Tract. 8vo. vol. 321. Glasgow, [1881.] 8vo.*

- DEAS, J.—*continued*. Speech delivered . . . at the annual dinner of the Clyde Trust Officials on 22nd February, 1894. *Tract*. 8vo. vol. 534. [Glasgow,] 1894. 8vo.
- The Weirs across the Clyde at Glasgow; their history, and results of their removal. *Tract*. 8vo. vol. 406. Glasgow, 1886. 8vo.
- DEBAUVE, A. Manuel de l'ingénieur des ponts et chaussées. 19 vols. Paris, 1871-78.
- Procédés et matériaux de construction. 3 vols. (Atlas of plates.) Paris, 1885. 8vo. and 4to.
- DE BEERS CONSOLIDATED MINES. Annual report, 1890. Lond. 1890. folio.
- Underground De Beers; being notes in elucidation of the model shown at the Grahamstown exhibition, December, 1887. *Tract*. folio. vol. 42. Grahamstown, 1887. folio.
- DEBENHAM, J. A new theory of the Tides . . . 2nd edition. *Tract*. 8vo. vol. 96. Lond. 1847. 8vo.
- DE BERENGER, —, Baron. Reflections and appeals . . . on the Game Laws, etc. *Tract*. 8vo. vol. 78. Lond. 1828. 8vo.
- DEBIZE, A. Leçons sur les machines à vapeur. 1885. See HIRSCH, J., and DEBIZE, A.
- DE BOTWOR, C. H. B. The Lightning Calculator. *Tract*. 8vo. vol. 489. Lond. [1890.] 8vo.
- DEBRAY, P. Permeability of Cements. 1889. See DURAND-CLAYE, L., and DEBRAY, P.
- DEBY, J. Report on the Progress of the Iron and Steel Industries in Foreign Countries. 1878. See IRON AND STEEL INSTITUTE.
- DECAUVILLE, P. Le chemin de fer Decauville pendant l'Exposition de 1889. *Tract*. 8vo. vol. 531. 1890. 8vo.
- DECHARME, C. Marche de l'évaporomètre au sulfure de carbone comparée à celle de l'évaporomètre à eau et des autres phénomènes météorologiques concomitants. *Tract*. 8vo. vol. 248. 1875. 8vo.
- Note sur la relation entre la température des métaux et leurs colorations thermiques. *Tract*. 8vo. vol. 255. Angers, 1875. 8vo.
- Nouvelles flammes sonores. *Tract*. 8vo. vol. 255. Angers, 1875. 8vo.
- DE CHAUMONT. See FRANÇOIS DE CHAUMONT, F. S. B.
- DECHEN, H. VON. Geognostische Umriss der Rheinländer, etc. 1825. See OEYNSHAUSEN, C. VON, DECHEN, H. VON, and LA ROCHE, H. VON.
- DECIMAL ASSOCIATION. Answers to fallacies on the Decimal Question. Balance of trade, exchanges, and common coins. *Tract*. 8vo. vol. 139. [1854?] 8vo.
- International Moneys. *Tract*. 8vo. vol. 139. [1854?] 8vo.
- Proceedings. With an introduction by Professor De Morgan, and notes. *Tract*. 8vo. vol. 139. Lond. 1854. 8vo.

- DECIMAL ASSOCIATION**—*continued*. Weights, Measures, and Money simplified by the adoption of a decimal system of units. *Tract. 8vo. vol. 497. Lond. [1890.] 8vo.*
- DEE, River.** An Act for confirming an agreement between the Proprietors of the Dee Navigation and certain Lords of Manors, *etc.* *Lond. 1791. folio.*
- Admiralty Inquiry, Dee Navigation Improvement, Chester. Minutes of Evidence, Appendices, and plans. *Tract. folio. vol. 26. Lond. [1849.] folio.*
- [Letter] to the Committee appointed to consider the best plan of improving the River Dee, and the Port and Harbour of Chester: a reply to Mr. John Scott Russell's Letter. By Mercator. *Tract. 8vo. vol. 286. Chester, 1839.*
- Report of J. M. Bloxam and J. Abernethy upon the River Dee Navigation Improvements: with Minutes of Evidence. *Lond. 1850. folio.*
- Statement concerning the navigation of the Dee. *Tract. 8vo. vol. 286. Chester, 1839. 8vo.*
- DEEBLE, E. B.** Plan for the introduction of the patent Metallic Caisson, in forming piers, harbours, *etc.* *Tract. 8vo. vol. 76. Lond. 1827. 8vo.*
- DEERING, W. H.** On some points in the examination of Tallow and some commercial Oils, especially for acidity. *Tract. 8vo. fol. 381. Manchester, 1884. 8vo.*
- Recent inventions in Gunpowder and other Explosives. *Tract. 8vo. vol. 479. Lond. 1889. 8vo.*
- DE FOREST, E. L.** Interpolation and adjustment of Series. *Tract. 8vo. vol. 272. New Haven, 1876.*
- On Adjustment Formulas. *Tract. 8vo. vol. 290. Iowa, 1877. 8vo.*
- On repeated Adjustments and on signs of Residuals. *Tract. 8vo. vol. 290. Iowa, 1878. 8vo.*
- DEGHILAGE, A. L., and MORANDIÈRE, J.** Les locomotives à l'exposition de Vienne en 1873. Notices et dessins. 1^{re}, 2^e et 3^e parties. *Tract. folio. vol. 35. Paris, 1874-76. 4to.*
- DEGLAUDE, G.** Examen des divers moyens préconisés pour soustraire aux inondations les grandes plaines du cours moyen et inférieur des fleuves. *Tract. 8vo. vol. 252. Paris, 1872. 8vo.*
- DEGOUSÉE, —, and LAURENT, C.** Guide du sondeur, ou traité théorique et pratique des sondages. 2^e édition. (Atlas of plates.) 2 vols. (Plates belong to first edition, 1847.) *Paris, 1861. 8vo.*
- DEGRAND, E., and RÉSAL, J.** Ponts en maçonnerie. Avec une introduction, par M. C. Lechalas. 2 vols. *Paris, 1887-88. 8vo.*
- DEGRAND, L.** Extraits d'un mémoire sur le balisage et l'éclairage maritime en Angleterre et en Écosse. *Tract. 8vo. vol. 103. Paris, 1856. 8vo.*

- DEHARME, —, et DESNOS, —. Plan de la ville et faubourgs de Paris. Paris, 1788. 4to.
- DEHARME, E. Chemins de fer. Superstructure. (Atlas of Plates.) Paris, 1890. 8vo. and 4to.
- DEIDIER, —, Abbé. Le parfait ingénieur français, ou la fortification offensive et défensive . . . Nouvelle édition . . . augmentée de la relation du siège de Lille, et du siège de Namur, et enrichie de plus de cinquante planches. Paris, 1742. 4to.
- DEKING-DURA, A. Dues and Tolls on Navigable Ways in the Netherlands. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.
- DE LA BECHE, Sir H. T. Address delivered at the anniversary meeting of the Geological Society of London, on the 18th of February, 1848 (1849), etc. Tract. 8vo. vol. 118.
 Lond. 1848, 49. 8vo.
- A Geological Manual. 2nd edition. Lond. 1832. 8vo.
- — 3rd edition. Lond. 1833. 8vo.
- The Geological Observer. Lond. 1851. 8vo.
- Geology: how to observe. 2nd edition. Lond. 1836. 8vo.
- Museum of Practical Geology. Government school of mines and of science applied to the arts. Inaugural discourse, etc. Tract. 8vo. vol. 100. Lond. 1851. 8vo.
- Report on the Geology of Cornwall, Devon and West Somerset. [Memoirs of the Geological Survey.] Lond. 1839. 8vo.
- Researches in Theoretical Geology. Lond. 1834. 8vo.
- DE LA GARDE, P. C. Memoir of the Canal of Exeter, from 1563 to 1724: with a continuation from 1819 to 1830 and . . . Reports on the Canal, by James Green. Tract. 8vo. vol. 498.
 (From Min. Proc. Inst. C.E.) Lond. 1845. 8vo.
- DELAHAYE, P. L'année électrique, ou exposé annuel des travaux scientifiques, des inventions et des principales applications de l'électricité à l'industrie et aux arts. 8 vols.
 Paris, 1885-91. 8vo.
- L'éclairage électrique par le moteur à gaz. Tract. 8vo. vol. 515.
 Paris, 1890. 8vo.
- Les applications du gaz en 1889. Tract. 8vo. vol. 519.
 Paris, 1890. 8vo.
- DELAIRE, A. La constitution de l'Angleterre. 1875. See LE PLAY, F., and DELAIRE, A.
- DELAISTRE, H. Carte de la navigation, et des routes de l'intérieur de l'empire français, année 1812. Paris, 1812. 8vo.
- DELAISTRE, J. R. Encyclopédie de l'ingénieur, ou dictionnaire des ponts et chaussées. 3 vols. (Atlas of plates.)
 Paris, 1812. 8vo. and 4to.
- DELAÎTRE, —. Rapport sur la boîte à graisse de M. Proust, à l'usage des chemins de fer. Tract. 8vo. vol. 179.
 Orléans, [1856?] 8vo.

- DELAMARCHE, A. *Éléments de télégraphie sous-marine. Tract.*
8vo. vol. 145. *Paris*, 1858. 8vo.
- DELABRE, J. B. J. *Analyse des travaux de l'Académie Royale des Sciences, pendant l'année 1819; partie mathématique. Tract.*
4to. vol. 18. *Paris*, 1820. 4to.
- *Astronomie théorique et pratique. 3 vols. Paris*, 1814. 4to.
- *Base du système métrique décimal, etc. 1806–21. See MÉCHAIN, P. F. A., and DELAMBRE, J. B. J.*
- DE LA MOTTE, P. H. *On the various applications of Anastatic Printing and Papyrography: with illustrative examples.*
Lond. 1849. 8vo.
- DELANO, W. H. *Twenty years' practical experience of Natural Asphalt and Mineral Bitumen.*
Lond. 1893. 8vo.
- DELAPOSTE, G. *Nouvel éclairage par l'électric-gas, lumière simili-électrique sans électricité. Tract. 8vo. vol. 450. Paris*, 1886. 8vo.
- DE LA RUE, W. *On the Solar Eclipse of August 18, 1868. Tract.*
8vo. vol. 210. *Lond.* [1869.] 8vo.
- DELAUNAY, C. *Cours élémentaire de mécanique théorique et appliqué. . . 2^e édition. Paris*, 1852. 12mo.
- DELAUNAY-BELLEVILLE, L. *Lois et règlements concernant les chaudières à vapeur.*
Paris, 1886. 8vo.
- *On the Commercial Régime of the Inland Navigation Ports in France. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.*
- DELAUNE, C. D. FAUNCE. *See FAUNCE-DELAUNE.*
- DELAUNEY, J. *See PITON-BRESSANT, A. H. Mélanges . . . [Avec une notice biographique sur l'auteur par J. Delauney.] 1892.*
- DE LA VERGNE REFRIGERATING MACHINE CO. *Mechanical refrigeration.*
New York, 1883. 8vo.
- DELAVILLE-DEDEUX, —. *La navigation aérienne en Chine. Tract. 8vo. vol. 429.*
Paris, 1863. 8vo.
- DELAWARE CANAL. *Report by the Commissioners appointed by the State of New Jersey to explore the route of a Canal to unite the River Delaware, near Easton, with the Passaic, near Newark. Tract. 8vo. vol. 335.*
Morris Town, 1823. 8vo.
- DELBOS, L. *Nautical terms in English and in French, etc.*
Lond. 1889. 8vo.
- DELBRÜCK, —. *Ueber die Entwicklung der deutschen Cement-industrie. Tract. 8vo. vol. 415.*
Stettin, 1885. 8vo.
- DELCROS, —. *Description des baromètres à niveau constant et à niveau variable. Tract. 8vo. vol. 313.*
Paris, 1841. 8vo.
- *Notice sur les altitudes du Mont-Blanc et du Mont-Rose, déterminées par des mesures barométriques et géodésiques. Tract. 4to. vol. 45.*
Versailles, [1851.] 4to.

- DELESSE, A. Carte agricole de la France. *Tract. 8vo. vol. 254.*
Paris, 1862. 8vo.
- Carte agronomique des environs de Paris. *Tract. 8vo. vol. 134.*
Paris, 1874. 8vo.
- Carte agronomique du département de Seine-et-Marne. *Tract. 8vo. vol. 332.*
Paris, 1880. 8vo.
- Cartes géologiques et hydrologiques de la ville de Paris. *Tract. 8vo.*
Paris, [] 8vo.
- Distribution de la pluie en France. *Tract. 8vo. vol. 149.*
Paris, 1868. 8vo.
- Exposition universelle de 1862. Matériaux de construction. *Tract. 8vo. vol. 136.*
Paris, 1863. 8vo.
- La mâchoire humaine de Moulin-Quignon. *Tract. 8vo. vol. 175.*
Paris, [1863.] 8vo.
- Matériaux de construction de l'exposition universelle de 1855.
Paris, 1856. 8vo.
- Les oscillations des côtes de France. *Tract. 8vo. vol. 218.*
Paris, 1872. 8vo.
- Rapport [by the Acad. of Sciences] sur un mémoire de M. Delesse, intitulé, "Étude des déformations subies par les terrains de la France. *Tract. 4to. vol. 69.*
Paris, 1872. 4to.
- Recherches sur l'eau dans l'intérieur de la terre. *Tract. 8vo. vol. 136.*
Paris, 1861. 8vo.
- Recherches sur l'origine des roches. *Tract. 8vo. vol. 126.*
Paris, 1858. 8vo.
- [Another edition.] *Tract. 8vo. vol. 160. Paris, 1865. 8vo.*
- Sur les études de géologie agronomique aux États Unis et en particulier sur celles de M. G. H. Cook dans le New Jersey. (Soc. Nationale d'Agricult. de France.) *Tract. 8vo. vol. 332.*
Paris, 1880. 8vo.
- Sur les gisements de chaux phosphatée de l'Estramadure. *Tract. 8vo. vol. 269.*
Paris, 1877. 8vo.
- DELESSE, A., and OTHERS. Rapport au sujet de l'inondation souterraine qui s'est produite dans les quartiers nord de Paris en 1856. *Tract. 4to. vol. 30.*
Neuilly, 1861. 4to.
- DELESSE, A., and LAPPARENT, A. DE. Revue de géologie. *See PERIODICAL PUBLICATIONS.*
- DELESSE, A., and LAUGEL, A. Revue de Géologie. *See PERIODICAL PUBLICATIONS.*
- DELFT.—Polytechnische School. Annales. Liv. 1-3.
Leiden, 1884-85. 4to.
- Programma der lessen, 1867-68. *Delft, 1867-68. 8vo.*
- Reglement. *Delft, [1884.] 8vo.*
- DELGADO, J. Museo español de antigüedades. Vols. 1-9.
Madrid, 1874-77. folio.

- DELIUS, C. F. *Traité sur la science de l'exploitation des mines, par théorie et pratique.* [Translated from the German.] 2 vols. *Paris*, 1778. 4to.
- DELIVET, E. *L'exagération des charges militaires et les prix de revient, etc.* *Havre*, 1890. 8vo.
- DELLWIK, C. A. *Expériences de force et de traction sur des tôles suédoises produites par des procédés divers.* *Tract.* 4to. vol. 81. *Stockholm*, 1878. 4to.
- DEL MAR, A. *A history of the Precious Metals.* *Lond.* 1880. 8vo.
- DELOCRE, E. *Papers on Dams of Masonry.* 1869. *See* GRAEFF, M., and DELOCRE, E.
- DELPAT, J. P. *See* BORDES, J. P. DE, and OTHERS. *Het leven en de werken van den Generaal-Majoor Dr. J. P. Delprat.* 1882-83.
- DEMANET, A. *Cours de construction professé à l'École militaire de Bruxelles (1843 à 1847). Connaissance des matériaux. Emploi des matériaux. Théorie des constructions.* *Bruxelles*, 1847. 8vo.
- *Exploitation des mines : nouvelle machine d'extraction.* *Tract.* 8vo. vol. 175. *Liège*, 1859. 8vo.
- *Gisement, extraction et exploitation des mines de houille.* *Paris.* 12mo.
- *Mémoire sur l'architecture des églises.* 2^e édition. *Tract.* 4to. vol. 59. *Bruxelles*, 1847. 4to.
- DEMANET, C. *Fours à coke du système Semet-Solvay pour la récupération des sous-produits.* *Tract.* 8vo. vol. 519. *Liège*, [1890.] 8vo.
- *The Semet-Solvay Coke Oven with recovery of bye-products.* *Tract.* 8vo. vol. 519. *Paris*, 1890. 8vo.
- DEMERARA. *Report on the Sea Defences of the West Coast of Demerara : by H. Siccama.* [Demerara.] 1879. folio.
- *Report on the Water Supply of Demerara : by H. Siccama.* *Lond.* 1879. folio.
- DEMERARA, *River.* *Report upon the Bar of the Demerara River and the Port of Georgetown : by H. Siccama.* *Demerara*, 1880. folio.
- DEMEURE, A. [For works by V. Watteyne and A. Demeure :] *See* WATTEYNE, V., and DEMEURE, A.
- DEMOLY, A. *Comparaison des prix de revient des traverses en bois et des traverses en fer pour l'établissement et l'entretien des voies.* *Tract.* folio. vol. 44. *Alger*, 1882. folio.
- *Étude sur les traverses en bois de diverses essences.* *Tract.* folio. vol. *Alger*, 1880. folio.
- DEMOULIN, M. *Étude sur les locomotives anglaises.* *Tract.* 8vo. vol. 429. *Paris*, 1885. 8vo.

- DEMOULIN, M.—*continued*. Nouvelles machines marines des bâtiments à grand vitesse des torpilleurs et des embarcations à vapeur. Paris, 1888. 4to.
- DEMPSEY, G. D. The Inventor's Manual, *etc.* 1843. See DANSON, J. T., and DEMPSEY, G. D.
- Iron Roofs: a series of examples, *etc.* Lond. 1850. 4to.
- The Machinery of the Nineteenth Century; illustrated from original drawings, *etc.* Parts 1–5. Lond. 1852. folio.
- The practical Railway Engineer: a concise description of the engineering and mechanical operations and structures which are combined in the formation of railways for public traffic, *etc.* 4th edition. Lond. 1855. 4to.
- Railways: papers on the mechanical and engineering operations and structures combined in the working of a railway. Lond. 1845–46. 4to.
(From vols. 7 and 8 of Papers on Subjects connected with the Duties of the Corps of Royal Engineers.)
- Rudimentary treatise on the Drainage of districts and lands. 3rd edition, revised and greatly extended. Lond. 1859. 8vo.
- — 4th edition. Lond. 1857. 8vo.
- Rudimentary treatise on the Drainage of Towns and Buildings . . . 4th edition. Lond. 1867. 8vo.
- [Another edition.] On the drainage of Lands, Towns, and Buildings. . . . With large additions . . . by D. K. Clark. Lond. 1887. 8vo.
- A rudimentary treatise on the Locomotive Engine . . . 3rd edition. Lond. 1866. 12mo.
- — [Another edition.] Lond. 1879. 8vo.
- Tubular and other iron Girder-Bridges, particularly describing the Britannia and Conway tubular bridges: with a sketch of iron bridges, and illustrations of the application of malleable iron to the art of bridge-building. 3rd edition. Lond. 1865. 8vo.
- — 4th edition. Lond. [1877?] 8vo.
- DEMPSEY, J. M. Our Ocean Highways: a condensed universal route-book, by sea, by land, and by rail, *etc.* Lond. 1870. 8vo.
- DEMPSTER, H. The Fisheries and Fish-markets of Great Britain. Tract. 8vo. vol. 254. Edinburgh, 1874. 8vo.
- DEN GOLD FIELD, *Tasmania*. Report on the Mineral Resources and Permanency of the Den Gold Field. By G. Thureau. [Hobart,] 1882. folio.
- DENAMIEL, E. Notes sur l'exposition universelle de Vienne. Tract. 8vo. vol. 245. Marseille, [1873.] 8vo.
- Notice sur la construction des bassins de radoub de Marseille. Tract. 8vo. vol. 251. Marseille, 1873. 8vo.
- DENFER, J. Architecture et constructions civiles. Maçonnerie. 2 vols. Paris, 1891. 8vo.
- DENHAM, —, *Captain*. Journals kept during a captivity in China, *etc.* 1844. See GULLY, R., and DENHAM, —, *Capt.*

DENHAM, H. M., *Comm., R.N.* Sailing directions for the Bristol Channel. *Lond.* 1839. 8vo.

— Sailing Directions from Point Lynas to Liverpool, with tidal courses and tide gauge table, for navigating the Dee and Mersey, including the latest alterations. *Liverpool*, 1840. 8vo.

DENHAM, H. M., *Comm., R.N.*, and OTHERS. A chart of the approaches to Liverpool for the years 1835, 1837–40, 1846, 1849, 1852–54, 1856, 1857, 1862, 1864, 1866, 1868–71, 1873–1883. Atlases folding in 8vo. *Liverpool*, 1835–83. 8vo.

(Wants 1876.)

DENHAM, J., and OTHERS. Manor of Imber, otherwise Imworthes. A survey made the 1st March, 1607. Lower Thames Valley main sewerage. MS. [] folio.

DENISON, Sir W. Roads and Railways in New South Wales and India, with remarks explanatory of the advantages likely to result from the employment . . . of animal power, instead of steam power. *Tract.* 8vo. vol. 145. *Madras*, 1864. 8vo.

— Varieties of Vice-regal Life. 2 vols. *Lond.* 1870. 8vo.

DENMARK. Statsbanedriften, 1867–1892. [*Copenhagen*, 1892.] 8vo.

DENNY, A. On Shipowners and Shipbuilders in their technical relationships, and some points of interest for their mutual consideration. [*2nd Int. Mar. Congr.*] [*Lond.* 1893.] 8vo.

DENNY, W. Lectures on Building Materials; delivered at the Royal Engineer establishment, Chatham. *Chatham*, 1868–78. folio.

— On Cooking and Heating by Gas. *Tract.* 8vo. vol. 345. *Dumbarton*, 1881. 8vo.

— On Cross Curves of Stability, their uses, and a method of constructing them, obviating the necessity for the usual correction for the differences of the wedges of immersion and emersion. With discussion. *Tract.* 4to. vol. 109. *Lond.* 1884. 4to.

(Proc. Institution of Naval Architects.)

— “On Launching Velocities,” and “On the Reduction of Transverse and Longitudinal Metacentric Curves to Ratio Curves.” With discussions. *Tract.* 4to. vol. 109. *Lond.* 1882. 4to.

(Proc. Institution of Naval Architects.)

— On Mr. Mansel's and the late Mr. Froude's methods of analysing the results of progressive Speed Trials. *Tract.* 8vo. vol. 414. *Glasgow*, 1885. 8vo.

— On the Speed and carrying of Screw Steamers. *Tract.* 8vo. vol. 349. *Greenock*, 1882. 8vo.

DENT, E. J. An abstract from two lectures on the construction and management of Chronometers, Watches, and Clocks; delivered before the members of the United Service Institution, May, 1841. With an Appendix on the errors of chronometers, and an explanation of a new construction of the compensation-balance. *Tract.* 8vo. vol. 72. *Lond.* 1842. 8vo.

- DENT, E. J.—*continued*. A description of the Dipleidoscope, or double-reflecting meridian and altitude instrument ; with plain instructions for the method of using it in the correction of time-keepers. *Tract.* 8vo. vol. 72. Lond. 1843. 8vo.
- A paper on the patent Azimuth and Steering Compass. *Tract.* 8vo. vol. 65. (Read before the British Association.) Lond. 1844. 8vo.
- A treatise on the Aneroid, a newly invented portable Barometer ; with a short historical notice of barometers in general, *etc.* *Tract.* 8vo. vol. 84. Lond. 1849. 8vo.
- DENT, H. C. A year in Brazil, *etc.* Lond. 1886. 8vo.
- DENT, W. Y. Cantor lectures on Building Materials, *etc.* Lond. 1887. 8vo.
- DENTON, E. F. B. Handbook of House Sanitation. Lond. 1882. 8vo.
- The Disposal of the Sewage of the Metropolis : a lecture, *etc.* *Tract.* 4to. vol. 106. Lond. 1887. 4to.
- DENTON, J. B. Agricultural Drainage. Lond. 1883. 8vo.
- The Agricultural Labourer. *Tract.* 8vo. vol. 269. Lond. 1868. 8vo.
- A description of the A Level, for the use of workmen in the drainage of land . . . and all works requiring a regular fall. *Tract.* 8vo. vol. 61. Lond. [1843 ?] 8vo.
- Drainage of Lands, and the sewerage of towns, *etc.* *Tract.* 8vo. vol. 223. Lond. 1849. 8vo.
- The Farm Homesteads of England : a collection of plans, *etc.* Lond. 1864. folio.
- Land Drainage and Drainage Systems : a paper read before the London Central Farmers' Club, *etc.* *Tract.* 8vo. vol. 118. Lond. 1855. 8vo.
- The Management of Rivers. *Tract.* 8vo. vol. 342. (From the Journal of the Farmers' Club.) Lond. 1881. 8vo.
- The Marshes of south Italy : a few words bearing upon land speculation and cotton-growing in Italy,—malaria and brigandage. *Tract.* 8vo. vol. 173. Lond. 1865. 8vo.
- On the Advantages of a daily Register of the Rainfall throughout the United Kingdom, *etc.* *Tract.* 4to. vol. 52. Lond. 1858. 4to. (From the Journal of the Society of Arts.)
- On the progress and results of the Underdrainage of Land in Great Britain. *Tract.* 8vo. vol. 148. Lond. 1856. 8vo. (From the Journal of the Society of Arts.)
- Outline of a method of Model Mapping ; with a view to append, by an application of the art of levelling to that of area surveying, the advantage of a section of elevations and depressions, to the uses of a map of superficial contents . . . 2nd edition. Liverpool, 1841. 8vo.
- The question What can now be done for British Agriculture ? answered . . . Advocating a general and uniform system of drainage, *etc.* *Tract.* 8vo. vol. 61. Lond. 1842. 8vo.

- DENTON, J. B.—*continued*. Remarks on the Land Drainage Act, 1861, in three letters reprinted from the "Agricultural Gazette." *Tract. 4to. vol. 49.* *Lond. [1862.] 4to.*
- Sanitary Engineering: a series of lectures given before the School of Military Engineering at Chatham, 1876. *Lond. 1877. 8vo.*
- Sanitary Works and Sewage Utilization. *Tract. 8vo. vol. 203.* *Lond. 1869. 8vo.*
- Sewage Disposal: intermittent downward filtration *per se* and in combination with surface irrigation. *Tract. 8vo. vol. 307.* *Lond. 1879. 8vo.*
- Sewage disposal: ten years' experience in works of intermittent downward filtration. With notes on the practice and results of Sewage Farming. *Tract. 8vo. vol. 325.* *Lond. [1881.] 8vo.*
- — 2nd edition, with additions. *Tract. 8vo. vol. 372.* *Lond. 1885. 8vo.*
- Sewage Farming:—No. 1. With some remarks on the position of sewer authorities in relation to lands to which sewage is applied. *Tract. 8vo. vol. 203.* *Lond. 1870. 8vo.*
- Sewerage of London: a communication addressed to the Commissioners of Sewers, conveying a proposal for improved drainage of the metropolis, and an improved supply of water to its inhabitants. *Tract. 8vo. vol. 83.* *Lond. 1849. 8vo.*
- The Storage of Water. *Tract. 8vo. vol. 274.* *Lond. 1874. 8vo.*
- The Water question: a letter addressed . . . to the Earl of Derby, explaining a proposal for the supply of the Metropolis from the higher sources of the Thames in connection with the storage of surplus waters. *Tract. 8vo. vol. 151.* *Lond. 1866. 8vo.*
- Water Supply and domestic Filtration. *Tract. 8vo. vol. 307.* *[1879.] 8vo.*
- DENTON, Rev. W. Observations on the Displacement of the Poor, by Metropolitan Railways and by other public improvements. *Tract. 8vo. vol.* *Lond. 1861. 8vo.*
- DENVER. Annual Report of the City Engineer. *Denver, 1887. 8vo.*
- *Society of Civil Engineers and Architects.* Transactions. Vol. I., Jan.—June, 1890. *Denver, Colo., 1890. 8vo.*
- DENVER AND RIO GRANDE RAILWAY. Specifications for a stock car body. *Tract. folio. vol. 44.* *[1883.] folio.*
- Specifications of a tank-switching Locomotive Engine, class 48. *Tract. folio. vol. 44.* *[1883?] folio.*
- DENY, E. Chauffage et ventilation rationnelle. *Tract. 8vo. vol. 361.* *Paris, 1883. 8vo.*
- Traité théorique et pratique des machines soufflantes. *Paris, 1887. 8vo.*

- DENYS, R. On the Water Supply of Canals, especially in the eastern region of France. [*5th Int. Congr. Int. Nav.*] [*Paris*, 1892.] 8vo.
- DE PENNING, G. A. The nature and cause of the Resistance of Water to a vessel passing through it. Also the best form of fast vessel, its propeller, and engines. *Tract.* 8vo. vol. 482.
Lond. 1889. 8vo.
- A paper on the effect of Gravity. *Tract.* 8vo. vol. 410.
Calcutta, 1885. 8vo.
- DEPOUHON, —. Du mode d'exécution du système des chemins de fer en Belgique. *Tract.* 8vo. vol. 81. *Bruzelles*, 1833. 8vo.
- DEPTFORD. Plan of H. M. Dockyard and Royal Victoria Victualling Yard.
Lond. 1858. 8vo.
- — [Another edition, corrected.] *Lond.* 1878. 8vo.
- Specification of the Masonry, Brick-Work, *etc.*, of a new Entrance to the Basin at the Royal Dock Yard . . . and also for the building of a river wall, *etc.* *Tract.* folio. vol. 49.
Lond. 1830. folio.
- DEPTFORD AND DOVER RAILWAY. Deptford and Dover subscription list. Speeches of counsel before a Committee of the House of Commons. *Tract.* 8vo. vol. 228. *Lond.* 1837. 8vo.
- DE RANCE, C. E. Borough of Warrington. Report on the water of the Winwick area. *Tract.* 8vo. vol. 506.
Warrington, 1890. 8vo.
- Notes on some Triassic Borings. *Tract.* 8vo. vol. 326.
[Manchester], 1879. 8vo.
- Further notes on some Triassic Borings near Warrington. *Tract.* 8vo. vol. 326.
[Manchester], 1880. 8vo.
- Map of River Basins in England and Wales in County Council groups.
Manchester, 1893. 8vo.
- Notes on Underground Water Supply and river floods. *Tract.* 8vo. vol. 506. 1889. 8vo.
- The Secondary Rocks of England as a source of Water Supply for towns and districts. *Tract.* 8vo. vol. 326.
[Manchester], 1878. 8vo.
- The Water Supply of England and Wales. *Lond.* 1882. 8vo.
- DERBY. An Act for better supplying with Water the Borough of Derby.
Lond. 1848. folio.
- Reports and resolutions on the Removal of the Manure dépôt by the treatment of refuse. *Tract.* 8vo. vol. 341.
Derby, 1878. 8vo.
- *Free Library and Museum and Art Gallery.* Annual Reports, *etc.*
Derby, 1886, *etc.* 8vo.
- DERBY CANAL. Act for making a Canal from the River Trent at or near Swarkstone Bridge to and through Derby to Little Eaton, *etc.*
Lond. 1793. folio.
- DERHAM, W. Artificial Clock-maker. 1734. See ANONYMOUS.

- DERÔME, —. Stoppages on Canals and Canalised Rivers in the northern and eastern regions of France. [*5th Int. Congr. Int. Nav.*] [*Paris*, 1892.] 8vo.
- Traction on Canals [in the] regions of the North and East of France. [*5th Int. Congr. Int. Nav.*] [*Paris*, 1892.] 8vo.
- DEROSNE, C., et CAIL, J. F. Notice sur chacun des objets figurant à l'Exposition universelle de 1855. *Tract.* 4to. vol. 52.
Paris, 1855. 4to.
- DERRIEN, R. Notice historique et descriptive sur la route du Mont-Cenis. *Tract.* 4to. vol. 4. *Angers*, 1816. 4to.
- DERRY, W. Boro' of Leeds. Abstract of accounts, 1878.
Leeds, 1878. 8vo.
- DERVAL, E. Étude sur la navigation aérienne. *Paris*, 1889. 8vo.
- DERVILLE et CIE. Exposition universelle d'Amsterdam, 1883. Notes sur les marbres exploités et exposés par Dervillé et Cie. *Tract.* 4to. vol. 94. *Paris*, 1883. 4to.
- DERWENT VALLEY, *Tasmania*. Detail Drawings of the Derwent Valley Line. *Hobart*, 1885. folio.
- Report on Derwent Valley Bridges : by W. C. Kernot.
[*Hobart*,] 1886. folio.
- DESAGULIERS, J. T. A course of Experimental Philosophy. 2 vols. *Lond.* 1734. 4to.
- — 3rd edition. 2 vols. *Lond.* 1763.
- A dissertation concerning Electricity : to which is annex'd, a letter from President Barbot. *Tract.* 8vo. vol. 493.
Lond. 1742. 8vo.
- DE SALIS, J., *Count*. Considerations on the propriety of a general Draining Bill, for the whole British Empire ; and of a commutation of tythes for Ireland. *Tract.* 8vo. vol. 217. *Armagh*, 1813. '8vo.
- DE SALIS, R. Tables giving hydraulic mean depth and area of Circular Sewers. *Tract.* 8vo. vol. 418. *Lond.* 1884. 8vo.
- DESBRIÈRE, T. M. A. Études sur la locomotion au moyen du rail central, contenant la relation des expériences entreprises par MM. Brassey, Fell, et Cie., pour la traversée du Mont-Cenis. *Tract.* 8vo. vol. 157. *Paris*, 1865. 8vo.
- DESCARTES, R. Geometria, anno 1637 gallicè edita ; postea autem unâ cum notis Florimondi de Beaune . . . operâ atque studio . . . recognita Francisci à Schooten. *Amstelodami*, 1683. 4to.
- *Passiones animæ.* *Amstelodami*, 1656. 4to.
- *Principia philosophiæ, etc.* *Amstelodami*, 1656. 4to.
- *Specimina philosophiæ : seu dissertatio de methodo rectè regendæ rationis, et veritatis in scientiis investigandæ ; dioptrice, et meteora, etc.* *Amstelodami*, 1656. 4to.
- DESCHANEL, A. P. Elementary treatise on Natural Philosophy. Edited by J. D. Everett. 4 parts. *Lond.* 1870-72. 8vo.

- DESHAYES, V. Classement et emploi des aciers. *Tract.* 8vo. vol. 324. Paris, [1880 ?] 8vo.
- DESMOND, C. Electricity for Engineers : a clear and comprehensive treatise . . . Part. I. Constant current. Revised edition. *Bridgeport, Conn.*, 1891. 8vo.
- DESNOS, —. Plan de la ville et faubourgs de Paris 1788. *See* DEHARME, —, and DESNOS, —.
- DESNOS, E. Les nouvelles chaudières à vapeur, etc. 1881. *See* BERETTA, C., and DESNOS, E.
- DESNOYERS, PH. C. *See* CROIZETTE DESNOYERS, PH.
- DESORMEAUX, P. L'art du tourneur. 2 vols. in 1. (Atlas of plates. Paris, 1824. 8vo.
- DESPEISSIS, L. H. La sténo-télégraphie : système nouveau de télégraphie breveté, par M. G. A. Cassagnes. *Tract.* 8vo. vol. 437. Paris, 1886. 8vo.
- DESPLACES, E. Le canal de Suez : épisode de l'histoire du XIX^e siècle. Paris, 1858. 12mo.
- DESPREZ, H. Porte du Havre. Notice sur le Bassin Bellot. Havre, 1887. 8vo.
- Port du Havre. Notice sur le Bassin Bellot. Paris, 1889. 8vo. (Extrait des "Annales des Ponts et Chaussées.")
- Port du Havre. Mémoire, etc. 1887. *See* WIDMER, E., and DESPREZ, H.
- DESSABLES, —. Manuel du tourneur. 2 vols. Paris, 1831. 8vo.
- DESSOYE, J. B. J. Guide pratique de l'emploi de l'acier : ses propriétés, etc. Paris, [1858.] 12mo.
- DETHRIDGE, F. A Handbook on the Electric Lighting Act, 1882, etc. 1882. *See* POLEY, A. P., and DETHRIDGE, F.
- DEUTSCH, H. Le pétrole et ses applications. Paris, 1891. 8vo.
- DEUTSCH, J. Die Überschwemmung und ihre Ursachen. *Tract.* 8vo. vol. 282. Wien, 1877. 8vo.
- DEUTSCHE EISENBAHN - TECHNIKER - VERSAMMLUNG. *See* VEREIN DEUTSCHER EISENBAHN-VERWALTUNGEN.
- DEUTSCHE GESELLSCHAFT für öffentliche Gesundheitspflege zu Berlin. Die Verhandlungen über Canalisation und Berieselung in den Sitzungen am. 29 Januar, 26 Februar, 19 März u. 23 April, 1883. Mit einem Anhang, Bericht des K. Gesundheitsamtes und des Herrn Professor Dr. Tiemann zu Berlin. *Tract.* 8vo. vol. 477. Berlin, 1883. 8vo.
- DEUTSCHER ARCHITEKTEN- UND INGENIEUR-VEREIN. Protokolle der Konferenz der Abgeordneten technischer Hochschulen behufs Berathung über einheitliche Bezeichnung mathematisch-technischer Grössen, etc. *Tract.* 8vo. vol. 331. Berlin, 1880. 8vo.
- DEUTSCHER GEOMETERVEREIN. Zeitschrift für Vermessungswesen. Bd. 1, (2, etc.) Stuttgart, 1872, etc. 8vo.

- DEUTSCHER POLYTECHNISCHER VEREIN IN BÖHMEN.
Vierteljahrsschrift. Bd. 1, (2 etc.) *Prag*, 1869, etc. 8vo.
- DEUTSCHER VEREIN VON GAS- UND WASSERFACHMÄNNERN. Festschrift zur XXIII. Jahresversammlung . . . Berlin, 1883. [Die Beleuchtung, Wasserversorgung und Kanalisation der Stadt Berlin.] *Berlin*, 1883. 4to.
- DEUTSCHER VEREIN ZUR FÖRDERUNG DER LUFTSCHIFFFAHRT. Zeitschrift. Bde. 5-6. 2 Bde.
Berlin, 1886-87. 8vo.
- [Continued as :—]
— Zeitschrift für Luftschiffahrt. Bd. 7, (8, etc.)
Wien, 1888, etc. 8vo.
- DEUTSCH-ÖSTERREICHISCHER TELEGRAPHEN-VEREIN.
Zeitschrift. Herausgegeben von der Königlich Preussischen Telegraphen-Direction. Redigirt von Dr. P. W. Brix. Bde. 2-16.
Berlin, 1854-69. 4to.
- DEVERELL, F. G. [Reports on the Improvement and Drainage of Lands in various districts of Ireland.] *Dublin*, 1847-50. 8vo.
- DEVY, J. The Life of Joseph Locke. *Lond.* 1862. 8vo.
- DEVILLEZ, A. De l'exploitation de la houille à la profondeur d'au moins mille mètres. 2^e édition. *Liège*, 1859. 8vo.
- Des travaux de percement du tunnel sous les Alpes, et de l'emploi des machines dans l'intérieur des mines.
Liège, 1863. 8vo.
- Éléments de constructions civiles. 3^e édition. *Mons*, 1878. 8vo.
- Éléments de mécanique considérée comme science naturelle. 1^{re} partie. Corps solides. *Mons*, 1873. 8vo.
- Théorie générale des machines à vapeur, mise à la portée des personnes qui n'ont point étudié les mathématiques supérieures.
Liège, 1861. 8vo.
- Traité élémentaire de la chaleur au point de vue de son emploi comme force motrice. 2 vols. *Mons*, 1881-82. 8vo.
- Ventilation des mines. *Mons*, 1875. 8vo.
- DEVONPORT. Plan of H. M. Dockyard, and Keyham Steam Yard.
Lond. 1858. 8vo.
- [Another edition, corrected.] *Lond.* 1879. 8vo.
- DEVONSHIRE. Return relating to Metalliferous Mines in Devon and Cornwall. *Lond.* 1890. folio.
- DEVONSHIRE ASSOCIATION. [Proceedings.] Vols. 1-20.
Lond. 1863-88. 8vo.
- DEVONSHIRE, E. L'application pratique du fer à la purification des eaux alimentaires. *Tract.* 8vo. vol. 407. *Anvers*, 1885. 8vo.
- Rapport sur l'eau de la distribution pendant l'été de 1885 Ville d'Anvers. *Tract.* 8vo. vol. 96. *Anvers*, 1885. 8vo.
- Three years' experience of Water Purification by means of Iron, in Anderson's revolving iron purifier. *Lond.* 1888. 8vo.

- DEVOOGHT, F. Cable-Railroad and Tramways without locomotives nor horses, the carriage rolling alone. *Tract. 8vo. vol. 340.*
Antwerp, [1882.] 8vo.
- DEWEY, F. P. The Department of Metallurgy and Economic Geology in the United States National Museum. *Tract. 8vo. vol. 495.*
[New York,] 1890. 8vo.
- The Heroult process of smelting Aluminum Alloys. *Tract. 8vo. vol. 495.*
[Philadelphia?] 1890. 8vo.
- The Lewis and Bartlett Bag-process of collecting Lead Fumes at the Lone Elm Works, Joplin, Missouri. *Tract. 8vo. vol. 495.*
[Philadelphia?] 1890. 8vo.
- A preliminary Descriptive Catalogue of the Systematic collections in Economic Geology and Metallurgy in the U.S. National Museum. 1891. *See UNITED STATES OF AMERICA.—National Museum. Bulletin No. 42.*
- DEWEY, M. Decimal Classification and Relativ Index for libraries, clippings, notes, etc. Fourth edition, enlarged.
Boston, 1891. 8vo.
- DEYKES, W. Considerations on the defective state of the Pavement of the Metropolis, etc. *Tract. 8vo. vol. 4.* *Lond. 1824. 8vo.*
(With autograph letter of presentation to Telford.)
- DIAMANT, J. Utilisation de la force motrice des marées. *Tract. 8vo. vol. 494.*
Paris, 1890. 8vo.
- DIBDIN, W. J. Sewage Treatment at Barking and Crossness. 1891.
See BINNIE, A. R., and DIBDIN, W. J.
- Some new phases in Photometrical Practice. *Tract. 8vo. vol. 517.*
Lond. 1885. 8vo.
- DICEY, W. T. Y., *Capt.* Dover to Calais, Newhaven to Dieppe, without Sea Sickness: a letter showing its accomplishment.
Tract. 8vo. vol. 241. *Lond. 1874. 8vo.*
- DICK, A. B. Notes on a new form of Polarizing Microscope.
Lond. 1890. 8vo.
- DICKENS, C. Dictionary of the Thames, from Oxford to the Nore.
Tract. 8vo. vol. 369. *Lond. 1882. 8vo.*
- DICKENS, C. H. Project for Canals of Irrigation . . . from the River Sone. 1861. *See INDIA.—SONE.*
- DICKERSON, E. N. The argument of E. N. Dickerson, with his notes and explanations; the charge of judge Nelson; and the verdict of the jury, in the case of Sickels v. Borden, defended by "the Novelty Iron Works," and Mr. H. Allen. Appendix.
Tract. 8vo. vol. 116. *New York, 1856. 8vo.*
- The Navy of the United States: an exposure of its condition, and the causes of its failure. *Tract. 8vo. vol. 141.*
New York, 1864. 8vo.
- DICKINSON, A. Electric Tramways. *Tract. folio. vol. 50.*
(From "The Financial World.") [Lond. 1893.] folio.

- DICKINSON, A.—*continued*. The South Staffordshire Electric Tramway. *Tract. folio. vol. 50.* [Lond. 1893.] folio.
(From "Money and Trade.")
- The South Staffordshire Tramways Company. *Tract. folio. vol. 50.* (From "The Financial World.") [Lond. 1893.] folio.
- DICKINSON, J. On the Marsaut Safety Lamp. *Tract. 8vo. vol. 360.* [Manchester, 1883.] 8vo.
- The Flora of Liverpool. Lond. 1851. 8vo.
- The progress of Mining and Geology. Read before the Manchester Geological Society, etc. *Tract. 8vo. vol. 447.* [Manchester,] 1887. 8vo.
- DICKINSON, T., *Capt., R.N.* A narrative of the operations for the recovery of the public stores and treasure sunk in H.M.S. "Thetis." Lond. 1836. 8vo.
- DICKSON, Dr. R. A lecture on the Dry Rot, etc. *Tract. 8vo. vol. 72.* Lond. 1838. 8vo.
- DICKSON, W., and Co. South African Diamond-fields: a guide to travellers and emigrants. *Tract. 8vo. vol. 195.* Cape Town, 1870. 8vo.
- DIDCOT, NEWBURY AND SOUTHAMPTON RAILWAY BILL. Minutes of Speech, Evidence and Proceedings. Lond. 1887. folio.
- DIDION, J. Lois de la résistance de l'air sur les projectiles. *Tract. 8vo. vol. 214.* Paris, 1857. 8vo.
- DIECKHOFF, —. Traction on the Elbe and Oder. 1892. See BELLINGRATH, E., and DIECKHOFF, —.
- DIEDRICHS, J. H. The Theory of Strains: a compendium for the calculation and construction of bridges, roofs and cranes. Baltimore, 1871. 8vo.
- DIENNE, — DE, *Count*. Histoire du dessèchement des lacs et marais en France avant 1789. Paris, 1891. 8vo.
- DIETRICH, E. Die Asphaltstrassen. Berlin, 1882. 8vo.
- Die Baumaterialien der Asphaltstrassen. *Tract. 8vo. vol. 330.* Berlin, 1881. 8vo.
- Die Baumaterialien der Steinstrassen; Beschaffenheit, Vorkommen und Gewinnung derselben. Berlin, [1885.] 8vo.
- Die Verbesserung des Portland-Cementes durch Beimischungen. *Tract. 8vo. vol. 413.* Berlin, [1885.] 8vo.
- Die zukünftige Entwicklung der Berliner Verkehrsverhältnisse. *Tract. 8vo. vol. 330.* Berlin, [1880.] 8vo.
- Ueber Stampf-Asphalt. *Tract. 8vo. vol. 413.* Berlin, 1885. 8vo.
- DIEUDONNÉ, C. Chemins de fer, etc. 1868. See VUILLEMIN, L., GUEBHARD, A., and DIEUDONNÉ, C.
- DIGBY, W. India for the Indians—and for England. Lond. 1885. 8vo.

- DILKE, Sir C. W., 1st Bart. Catalogue of a collection of works on or having reference to the Exhibition of 1851, in the possession of C. W. Dilke. (*Printed for private circulation.*) Lond. 1855. 8vo.
- DILLER, J. S. A late Volcanic Eruption in Northern California and its peculiar Lava. [*U.S. Geol. Survey. Bulletin No. 79.*] Washington, 1891. 8vo.
- Notes on the Geology of Northern California. [*U.S. Geol. Survey. Bulletin No. 33.*] Washington, 1886. 8vo.
- Peridotite of Elliott County, Kentucky. [*U.S. Geol. Survey. Bulletin No. 38.*] Washington, 1887. 8vo.
- DILLWYN, L. L. Our Railway System. *Tract.* 8vo. vol. 416. Lond. [1886.] 8vo.
- DIMOND, E. W. The Chemistry of Combustion, applied to the economy of fuel, with special reference to the construction of fire chambers, for steam boilers. Worcester, 1867. 8vo.
- DINAS COLLIERY. Dinas Colliery Explosion: report . . . on the Inquest, with notes of evidence. Lond. 1879. folio.
- DINES, G. Rainfall of the London district. Plate, in folio. 1872. folio.
- DINGLER, J. G., and E. M. Polytechnisches Journal. See PERIODICAL PUBLICATIONS.
- DINI, F. Sulla vinificazione. *Tract.* 8vo. vol. 160. Milano, 1865. 8vo.
- DIRCKS, H. Contribution towards a history of Electro-Metallurgy, etc. Lond. 1863. 8vo.
- The Life, times, and scientific labours of the second Marquis of Worcester: to which is added a reprint of his "Century of inventions," 1663, with a commentary thereon. Lond. 1865. 8vo.
- The policy of a Patent Law: a paper read at the Social Science Congress, Bristol, etc. *Tract.* 8vo. vol. 180. Lond. 1869. 8vo.
- Worcesteriana: a collection of literary authorities, affording . . . notices relating to Edward Somerset, sixth Earl and second Marquis of Worcester, inventor of the steam-engine, etc. Lond. 1866. 8vo.
- DIRCKS and Co. The Smoke nuisance. The Argand furnace of Mr. C. W. Williams, and its imitation by Mr. T. Symes Prideaux. *Tract.* 8vo. vol. 111. Lond. 1854. 8vo.
- DIRKS, J. Waarde van het Panama Kanal voor den wereldhandel. *Tract.* 8vo. vol. 323. Amsterdam, 1880. 8vo.
- DISLERE, P. Die Kreuzungsschiffe und der Kaperkrieg. Pola, 1876. 8vo.
- Die Panzerschiffe. Wien, 1874. 8vo.
- Die Panzerschiffe der neuesten Zeit. *Tract.* 8vo. vol. 292. Pola, 1877. 8vo.
- La guerre d'escadre et la guerre de côtes. (Les nouveaux navires de combat.) Paris, 1876. 8vo.

- DISTRICT RAILWAY. Metropolitan District Railway Bill. Minutes of Evidence and Speeches. *Lond.* 1883. folio.
- DIX, T. A. Treatise on Land-surveying . . . 4th edition, *etc.* *Lond.* 1819. 8vo.
- DIXEY, W. A. The Aneroid Barometer: plain directions for its use. *Tract.* 8vo. vol. 518. *Lond.* [1892.] 8vo.
- DIXON, C. D., *Maj.* Report on Tank Embankments constructed in the Ajmere district during 1814. *Tract.* 8vo. vol. 359. *Agra*, 1845. 8vo.
- DIXON, H. Cantor lectures on the use of Coal Gas, *etc.* *Lond.* 1855. 8vo.
- DIXON, J. Correspondence relating to Mr. J. Dixon's Claim against the Portuguese Government. *Lond.* 1882. folio.
- On the Resistance to Traction on Railways from friction and gravitation. *Tract.* 8vo. vol. 127. *Darlington*, 1861. 8vo.
- The Staithes Viaduct. On the use of wrought-iron and concrete columns for the construction of bridge piers. *Tract.* 8vo. vol. 455. *Lond.* 1875. 8vo.
- Traction on Railways and the alleged loss of power at high speeds practically considered. *Tract.* 8vo. vol. 144. 1864. 8vo.
- DIXON, S. Modern Machine Tools. Inaugural address, *etc.* *Tract.* 8vo. vol. 457. *Manchester*, 1888. 8vo.
- DIXON, T. Combined Circular Slide Rule and scale tables of natural and logarithmic sines, rumb points, *etc.*, *Tract.* 8vo. vol. 433. *Bradford*, 1886. 8vo.
- DOAB CANAL. Doab Canal: watercolour sketches of works. 2 vols. 1832–38.
- DOBBERT, E. Die Kunstgeschichte als Wissenschaft und Lehrgegenstand. Rede, *etc.* *Tract.* 4to. vol. 98. *Berlin*, 1886. 4to.
- DOBBS, A. E. By Meter or by Annual Value? A question for metropolitan water consumers arising out of the meaning and effect of the judgment of the House of Lords in *Cooke v. The New River Company*. *Tract.* 8vo. vol. 487. *Lond.* 1890. 8vo.
- DOBERCK, W. Observations and researches made at the Hong Kong Observatory. See HONG KONG.—*Observatory*.
- DOBSON, E. Address on the Progress of Applied Science in Canterbury, *etc.* *Tract.* 8vo. vol. 327. *Christchurch, N.Z.*, 1880. 8vo.
- Foundations and Concrete Works. . . New edition, revised by George Dodd. *Lond.* 1867. 8vo.
- The function of the Civil Engineer in the work of Colonization. *Tract.* 8vo. vol. 448. *Christchurch, N.Z.*, 1887. 8vo.
- An historical, statistical, and scientific account of the Railways of Belgium, from 1834 to 1842. *Lond.* 1843. 8vo.
- An inquiry into the influence of Railway Gauge upon the constructive cost and working expenses of railways. *Tract.* 8vo. vol. 207. *Christchurch, N.Z.*, 1871. 8vo.

- DOBSON, E.—*continued*. Pioneer Engineering: a treatise on the engineering operations connected with the settlement of waste lands in new countries. *Lond.* 1877. 8vo.
- The Railways of Belgium in 1842. 8vo. *Lond.* 1842. 8vo.
- Report to the Secretary for Public Works upon the practicability of constructing a bridle-road through the gorge of the Otira, and upon the character of the passes through the dividing range of the Canterbury province. Appendix. *Christchurch, N.Z.*, 1865. folio.
- Rudimentary treatise on Masonry and Stone-cutting; in which the principles of masonic projection and their application to the construction of oblique bridges, and Roman and Gothic vaulting are concisely explained. (Atlas of plates.) *Tract.* 4to. vol. 93. *Lond.* 1842. 8vo. & 4to.
- Rudimentary treatise on the manufacture of Bricks and Tiles. *Lond.* 1850. 8vo.
- — 5th edition. Revised . . . by C. Tomlinson, with additions by R. Malet. *Lond.* 1873. 8vo.
- — 7th edition. [*Practical Brick and Tile Book.* Part 1.] *Lond.* 1882. 8vo.
- Rudiments of the art of Building . . . 10th edition. *Lond.* 1877. 8vo.
- Synopsis of a course of four lectures on Foundations, *etc.* *Tract.* 8vo. vol. 155. *Christchurch, N.Z.*, 1866. 8vo.
- The student's guide to the practice of Measuring and Valuing Artificers' Works: By a Late eminent Surveyor. [Edited by E. Dobson.] *Lond.* 1843. 8vo.
- — 5th edition . . . with . . . additions . . . by E. W. Tarn. *Lond.* 1884. 8vo.
- DOBSON, S. Report on experiments made on board the *Isabella Croll* (screw steamer), at Cardiff, in December, 1858, for the purpose of ascertaining the comparative economic value and usefulness, for marine purposes, of the steam coals of Aberdare, in South Wales, and of Hartley, in Northumberland. *Tract.* 8vo. vol. 111. *Newport*, 1859. 8vo.
- DODD, G. Dictionary of Manufactures, Mining Machinery and the industrial arts. *Lond.* 1876. 8vo.
- DODD, R. Introductory report on the proposed Canal Navigation from Croydon to the river Thames at Rotherhithe. *Tract.* 8vo. vol. 64. *Lond.* 1799. 8vo.
- Letters to a merchant, on the improvement of the Port of London; demonstrating its practicability without wet docks, *etc.* *Tract.* 8vo. vol. 218. *Lond.* 1798. 8vo.
- Observations on Water; with a recommendation of a more convenient and extensive supply of Thames water to the metropolis. *Lond.* 1805. 12mo.
- Practical observations on the Dry Rot in Timber, *etc.* *Tract.* 8vo. vol. 361. *Lond.* 1815. 8vo.

- DODD, R.—*continued*. A report and estimate on the projected dry Tunnel or subterraneous passage under the river Tyne, to communicate with the two towns of North and South Shields. *Tract. 8vo. vol. 94.* *North Shields, 1797. 8vo.*
- Report on the first part of the line of Inland Navigation from the East to the West Sea by way of Newcastle and Carlisle, and the continuation of the river navigation into the North Sea; with estimates, *etc.* *Tract. 8vo. vol. 6.* *Newcastle, 1795. 8vo.*
- Report on the intended North London Canal Navigation; with general estimate, *etc.* *Tract. 4to. vol. 58.* *Lond. 1802. 4to.*
- Report on the line of Inland Navigation from the city of Durham to the navigable part of the river Wear; from thence down the vale of Team to the river Tyne; and the branch by Beamish to Kyo West Houses. *Tract. 8vo. vol. 94.* *Durham, 1796. 8vo.*
- Report on the line of Inland Navigation from Stockton to Winston, by way of Darlington and Staindrop, with projected branches to Durham, Northallerton, Thirsk, and Boroughbridge. *Tract. 8vo. vol. 94.* *Stockton, 1796. 8vo.*
- A report on the projected measures for the Defence of the Coal Mines, in the county of Durham, drawn up at the request of the Lord Bishop of Durham. *Tract. 8vo. vol. 94.* *1798. 8vo.*
- Report on the proposed Canal navigation, forming a junction on the rivers Thames and Medway; with general estimates, *etc.* *Tract. 8vo. vol. 94.* *Lambeth, 1799. 8vo.*
- Report on the state of London Bridge, showing the necessity for the erection of a new bridge. *Tract. 4to. vol. 13.* *Lond. [1820?] 4to.*
- Report, &c., on the present state of Tynemouth harbour, with projected improvements: as surveyed by order of the committee for obtaining a better navigation. *Tract. 8vo. vol. 94.* *1796. 8vo.*
- Report, with plans, sections, &c., of the proposed dry Tunnel, or passage, from Gravesend, in Kent, to Tilbury, in Essex; also on a canal from near Gravesend to Stroud. *Tract. 4to. vol. 5.* *Lond. 1798. 4to.*
- Reports to the honourable Commissioners of the river Wear on the state of the river, harbour, piers, *etc.*, of the port of Sunderland. *Tract. 8vo. vol. 94.* *Sunderland, 1794. 8vo.*
- DODGE, Y. R. Statistics of manufactures of Tobacco and of its commercial distribution, exportation and prices. [*U.S.A. 10th Census, vol. 3.*] *Washington, 1883. 4to.*
- DODSON, T. On the manufacture of Raw Sugar, *etc.* 1834. *See OAKS, V., and DODSON, T.*
- DODSON, W. *Col.* The designe for the perfect Draining of the Great Level of the Fens, (called Bedford Level), as it was delivered to the honourable corporation for the draining of the said great Level the 4th June 1664; as also several objections answered since the delivery of the said designe, with objections to the designe now in agitation. *Tract. 8vo. vol. 12. Lond. 1665. 8vo.*

- DOE PARK. Correspondence (Further Correspondence) relating to the Doe Park and Bradford Reservoirs. 2 pt.
Lond. 1865, 66. folio.
- DOEMMING, VON. Building and Working of the Inland Navigation Ports in the Elbe and Oder basins. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.
- DOLBEAR, A. E. The Telephone and how to make it.
Lond. 1878. 12mo.
- DOLEZALEK, C. Der Tunnelbau. Band I. Lief. 1.
Hannover, 1889. 8vo.
- DOLLFUS, J. Note sur les cités ouvrières. *Tract.* 8vo. vol. 311.
Paris, 1857. 8vo.
- DÖLLINGER, J. von. Rede in der öffentlichen Sitzung der K. Akademie der Wissenschaften am 25 Juli 1873 zur Vorfeier des allerhöchsten Geburtsfestes Sr. Majestät des Königs Ludwig II.
Tract. 4to. vol. 113. *München*, 1873. 4to.
- DOLLOND, P. Some account of the discovery made by the late Mr. J. Dollond, F.R.S., which led to the improvement in Refracting Telescopes. *Tract.* 4to. vol. 20. *Lond.* 1789. 4to.
- DONALDSON, G. An account of the Drainage of . . . Richmond, Surrey, etc. *Tract.* 8vo. vol. 498. *Lond.* 1856. 8vo.
(From Min. Proc. Inst. C.E.)
- Report as to the application of Sewage Water to Market Gardens at Fulham. *Tract.* folio. vol. 1. *Lond.* 1848. folio.
- Report on Latchmere Brook. *Tract.* 4to. vol. 49.
Lond. [1849.] 4to.
- Report on the Drainage of Richmond. *Tract.* 4to. vol. 49.
Lond. 1849. 4to.
- Report on the state of Hyde Park. *Tract.* 4to. vol. 49.
Lond. 1849. 4to.
- Report on the state of Regent's Park. *Tract.* 4to. vol. 49.
Lond. 1849. 4to.
- DONALDSON, JOHN, M. *Inst. C.E.* The more recent improvements in the Thornycroft Torpedo-boats. *Tract.* 8vo. vol. 484.
Lond. 1889. 8vo.
- The practical guide to the use of Marine Steam Machinery, etc.
Lond. 1885. 8vo.
- The Thornycroft Torpedo-vessels; their construction, armament, etc. *Tract.* 8vo. vol. 271. *Lond.* 1877. 8vo.
- Torpedo-boats. *Tract.* 8vo. vol. 349. *Lond.* 1882. 8vo.
(Read before the British Association.)
- DONALDSON, JOHN, Prof. Rudimentary treatise on Clay Lands and loamy soils, etc. *Lond.* 1852. 8vo.
- DONALDSON, T. L. Address upon the report from the Poor Law Commissioners in reference to those parts which inculcate the Metropolitan Commissioners of Sewers, etc. *Tract.* 8vo. vol. 74.
Lond. 1842. 8vo.

- DONALDSON, T. L.—*continued*. Architectura numismatica ; or architectural medals of classic antiquity. *Lond.* 1859. 8vo.
- Architectural maxims and theorems in elucidation of some of the principles of design and construction ; and lecture on the education and character of the architect. *Lond.* 1847. 8vo.
- Handbook of Specifications ; or, practical guide to the architect, engineer, surveyor, and builder . . . Preceded by a preliminary essay, forms of specifications and contracts, *etc.* With a review of the law of contracts, and of the responsibilities of architects, engineers, and builders, by W. C. Glen. 2 vols. *Lond.* 1859. 8vo.
- A Letter to H.R.H. the Duke of Sussex, with a plan for the promotion of art, science, and literature, by the moderate but effectual assistance of Government. *Tract.* 8vo. vol. 80. *Lond.* 1838. 8vo.
- On Lime, Mortar, Stucco, and Cement : being an article, headed "Stucco," in the volume of miscellanies in the Encyclopædia Metropolitana. *Lond.* 1840. 4to.
- Preliminary discourse pronounced before the University College of London, upon the commencement of a series of lectures on Architecture, 17th October, 1842. *Tract.* 8vo. vol. 59. *Lond.* 1842. 8vo.
- DONALDSON, W. Donaldson's Poncelet Turbine and water-pressure engine and pump : prefaced by a short treatise on the impulsive action of inelastic fluids. *Lond.* 1883. 4to.
- New Formulas for the loads and deflections of solid Beams and Girders. *Lond.* 1872. 8vo.
- On the present and future work of Engineers in reference to Public Health. *Tract.* 8vo. vol. 297. *Reading,* 1878. 8vo.
- Patent automatic Sewage-pump. *Tract.* 4to. vol. 110. *Lond.* [.] 4to.
- Principles of Construction and Efficiency of Water-wheels. *Lond.* 1876. 8vo.
- Switches and crossings : formulæ for ascertaining the angles of crossings, the lengths of switches, *etc.* *Lond.* 1871. 8vo.
- Tables for Platelayers, compiled from the formulæ in the work on switches and crossings. *Lond.* 1871. 12mo.
- Transmission of Power by Fluid Pressure, Air, and Water. *Lond.* 1888. 8vo.
- A treatise on the art of constructing Oblique Arches with Spiral Courses. *Lond.* 1867. 8vo.
- DONAU-REGULIRUNGS COMMISSION. *See* DANUBE.
- DONAU-VEREIN. *See* DANUBE.
- DONCASTER. Report on an Explosion of Gunpowder at Doncaster : by Maj. V. D. Majendie. *Lond.* 1880. folio.
- DONISTHORPE, W. Liberty or Law ? *Tract.* 8vo. vol. 363. *Lond.* 1884. 8vo.

- DONKIN, B., *F.R.S.* A paper read before the Institution of Civil Engineers on the construction of Carriage-way Pavements. *Tract. 8vo. vol. 20.* *London.* 1824. 8vo.
- Description of a Spring-level. *Tract. 4to. vol. 36.*
(From the Trans. Royal Astronomical Soc.) [*London.* 1837.] 4to.
- DONKIN, B., *Jun.* A Text-book on Gas, Oil, and Air Engines : or, internal combustion motors without boiler, *etc.*
London. 1894. 8vo.
- DONKIN, B. and Co. Economy in fuel in Steam-engines, with a description of a method of testing condensing engines. *Tract. 8vo. vol. 470.* *London.* [1874.] 8vo.
- DONKIN, J. B. Description of Lake Cowal irrigation pumping-plant. [MS.] *Tract. folio. vol. 47.* [] folio.
- Report on the proposal to divert water from the Snowy River into the Murrumbidgee and Lake George. *Tract. 8vo. vol. 506.* *Sydney,* 1887. 8vo.
- Star Atlas, and tables to facilitate the determining of the true meridian, *etc.* *Sydney,* 1872. 4to.
- DONKIN, J. B., and GIPPS, F. B. Report on the Darling River. *Tract. folio. vol. 48.* *Sydney,* 1887. folio.
- DONKIN, W. F. Acoustics. Theoretical. Part I. [No more published.] *Oxford,* 1870. 8vo.
- DONNE, B. Donne's new and correct plan of Bristol, Clifton, and the Hot Wells. *Bristol,* 1831. 12mo.
- DONNET, A. Carte générale représentant le tracé du chemin de fer de Paris à Orléans. 1842. 8vo.
- DORAN, L. Five letters on the Irish Railways, projected in 1844, and to be produced to Parliament in 1845. *Tract. 8vo. vol. 470.* *London.* 1845. 8vo.
- DORKING. Descriptive and statistical facts relating to the Local Board District, including particulars of the System of Sewerage and statement of accounts. [Compiled by G. S. Mathews.] *Tract. 8vo. vol. 534.* *Dorking,* 1893. 8vo.
- DORMOY, A. Documents divers concernant un nouveau mode du travail de la fonte pour produire le fer et l'acier. *Tract. 8vo. vol. 209.* *Troyes,* 1871. 8vo.
- DORSET AND SOMERSET CANAL. Act to enable the Proprietors to raise a further sum of money towards completing the Canal. *London.* 1803. folio.
- DORSETT, E. Liquid Fuel : Dorsett's patent apparatus for applying it to steam-boilers and furnaces generally. *Tract. 8vo. vol. 164.* *London.* 1868. 8vo.
- DORSEY, E. B. English and American Railroads compared. *Tract. 8vo. vol. 416.* *New York,* 1887. 8vo.
- English and American Railroads compared : with discussion by W. W. Evans, Thomas C. Clarke, Edward P. North. *New York,* 1887. 8vo.
- — 2nd edition. *New York,* 1887. 8vo.

- DORSEY, J. O. The Cegiha Language. [*Contributions to North American Ethnology*, vol. 6.] Washington, 1890. 4to.
- Omaha and Ponka letters. [*Smithsonian Institution*, Bureau of Ethnology.] Washington, 1891. 8vo.
- DORTMUND. Verein für die bergbaulichen Interessen im Oberbergamtsbezirk Dortmund. Jahres-Bericht für 1879. Essen, 1879. 4to.
- DOUGLAS, Sir H., Bart., Gen. An essay on the principles and construction of Military Bridges, and the passage of rivers in military operations. Lond. 1816. 8vo.
- — 3rd edition. Lond. 1853. 8vo.
- Metropolitan Bridges and Westminster improvements. 2nd edition. *Tract. 8vo. vol. 230.* Lond. 1846. 8vo.
- On Naval Warfare with Steam. Lond. 1858. 8vo.
- A treatise on Naval Gunnery. 3rd edition. Lond. 1851. 8vo.
- — 4th edition. Lond. 1855. 8vo.
- — 5th edition. Lond. 1860. 8vo.
- A postscript to the section on Iron Defences contained in the 5th edition of "Naval Gunnery." *Tract. 8vo. vol. 299.* Lond. 1860. 8vo.
- DOUGLAS, J. C. A manual of Telegraph Construction: the mechanical elements of electric telegraph engineering. Lond. 1875. 8vo.
- DOUGLAS, J. P. A run through South Wales *vid* the London and North-Western railway. *Tract. 8vo. vol. 166.* Shrewsbury, 1868. 8vo.
- DOUGLAS, Mrs. S. The life and selections from the correspondence of William Whewell, D.D. Lond. 1881. 8vo.
- DOUGLASS, JAMES. An account of the improvement of the Port of London, *etc.* See TELFORD, T., and DOUGLASS, JAMES.
- DOUGLASS, Sir JAMES N. Improvements in Coast Signals, with supplementary remarks on the new Eddystone Lighthouse. *Tract. 8vo. vol. 436.* Lond. 1884. 8vo.
- On fluted craterless Carbons for Arc Lighting. *Tract. 8vo. vol. 437.* Lond. 1886. 8vo.
- Specification for framing Lighthouses, piles, cylinders, *etc.* *Tract. 4to. vol. 61.* Lond. 1864. 4to.
- DOUGLASS, W. T. The new Eddystone Lighthouse. (Russian translation.) *Tract. 8vo. vol. 410.* St. Petersburg, 1885. 8vo.
- On the more efficient Lighting of Estuaries and Rivers. [2nd *Int. Mar. Congr.*] [Lond. 1893.] 8vo.
- DOULIOT, J. P. *Traité spécial de coupe des pierres.* 2^me édition, *etc.* (Atlas of plates.) Paris, 1862. 4to.
- DOULL, A., Lieut., R.A. Employment and Colonization for the million, based upon a proposed Railway Communication from the Atlantic to the Pacific in the territories of British North America. *Tract. 8vo. vol. 138.* Lond. 1851. 8vo.

(Read before the British Association.)

- DOULL, A., *Lieut., R.A.—continued.* Extensive and systematic Colonization in connection with the construction of the Inter-colonial Railway through the Canada Dominion. *Tract. 8vo. vol. 167.* Glasgow, 1868. 8vo.
- Fortification in an artilleristical point of view: a new system adapted to existing arms. *Tract. 8vo. vol. 128.* Woolwich, 1860. 8vo.
- Letters on the Ordnance Survey of Scotland. *Tract. 8vo. vol. 115.* Lond. 1853. 8vo.
- A project for opening a North-west Passage between the Atlantic and Pacific oceans, by means of a railway on British territory. Also, outlines of a plan proposed by the Canadian Land and Railway Association, for an extensive system of employment and colonization, in connection with the railways of British North America. *Tract. 8vo. vol. 104.* Lond. 1852. 8vo.
- Random hints on Railways and Railway Legislation. *Tract. 8vo. vol. 82.* Lond. 1848. 8vo.
- Report and outline of a plan by which an extensive Railway may be constructed in the British North American colonies, combining its execution with an enlarged scheme of colonization, etc. *Tract. 8vo. vol. 138.* Lond. 1850. 8vo.
- DOURSTHER, H. Dictionnaire universel des poids et mesures anciens et modernes, etc. Bruzelles, 1840. 8vo.
- DOUWES, C. Memorie ter volkomene aanwijzing der belangrijke voordeelen voor den lande, door een algemeen gebruik van watermolens met hellende schepraden, etc. 1808. See ECKHARDT, A. G. and F. F., and DOUWES, B.
- DOVE, H. W. Des lignes isothermes mensuelles. Traduit de l'allemand par C. Martins. *Tract. 8vo. vol. 135.* Versailles, [1850.] 8vo.
- The Distribution of Heat over the surface of the globe, illustrated by isothermal, thermic, isabnormal, and other curves of temperature. Lond. 1853. 4to.
- Gedächtnissrede auf Alexander von Humboldt, etc. *Tract. 8vo. vol. 445:* Berlin, 1869. 8vo.
- Klimatologische Beiträge. 2 Thle. Berlin, 1857, 69. 8vo.
- The Law of Storms considered in connection with the ordinary movements of the atmosphere. . . . 2nd edition. Lond. 1862. 8vo.
- Meteorologische Untersuchungen. Berlin, 1837. 8vo.
- Die Stürme der gemässigten Zone mit besonderer Berücksichtigung der Stürme des Winters 1862–63. *Tract. 8vo. vol. 446.* Berlin, 1863. 8vo.
- Ueber den Sturm vom 17 November, 1866. *Tract. 4to. vol. 106.* Berlin, 1868. 4to.
- Ueber Elektricität. *Tract. 8vo. vol. 446.* Berlin, 1848. 8vo.

- DOVE, H. W.—*continued*. Ueber Wirkungen aus der Ferne. *Tract.*
8vo. vol. 446. Berlin, 1845. 8vo.
- Untersuchungen im Gebiete der Inductionselectricität. *Tract.*
4to. vol. 106. Berlin, 1843. 4to.
- DOVER. Correspondence concerning the completion of the Admiralty Pier. Lond. 1866. folio.
- Correspondence relative to the causes of the wasting of the shore to the eastward of the Government Pier. Lond. 1873. folio.
- Correspondence relative to the damage to the Pier by the storm of the 1st Jan., 1877. Lond. 1878. folio.
- Report from the Select Committee on Dover Harbours; with the minutes of evidence, and appendix. Lond. 1836. folio.
- Report on the Harbour of refuge to be constructed in Dover Bay. Lond. 1846. folio.
- Reports on Dover Harbour. Lond. 1845. folio.
- Reports and plans for the construction of a Harbour of refuge and Breakwater in Dover Bay. Lond. 1848. folio.
- Dover Harbour Specifications. 1860. folio.
- DOWDEN, T. F., Col., R.E. The expense of Railway Transport. *Tract.* folio. vol. 37. Roorkee, 1885. folio.
- India and the Exchange difficulty; the proposed Gold Standard from an Anglo-Indian point of view. *Tract.* 8vo. vol. 513. Kirkcaldy, 1892. 8vo.
- Notes on Railways. *Tract.* 8vo. vol. 227. Bombay, 1873. 8vo.
- On the designs for Iron Bridges for deep rivers in alluvial formations, with reference to existing and proposed designs for large bridges on the Bombay Railway. *Tract.* 8vo. vol. 264. [Lond.] 1876. 8vo.
- Proposed action in India as regards the Currency, etc. *Tract.* 8vo. vol. 513. Kirkcaldy, [1893.] 12mo.
- The Railway Clearing System, as practised in the English Clearing House in 1876. *Tract.* folio. vol. 23. Lond. 1877. folio.
- Railway Dividends. *Tract.* 8vo. vol. 260. Lond. 1876. 8vo.
- Running and through Speed on Railways. *Tract.* folio. vol. 37. [Roorkee, 1885.] folio.
- The Rupee. *Tract.* 8vo. vol. 414. Simla, 1885. 8vo.
- A short account of the modes of Sewage-disposal in some of the chief towns of England, etc. *Tract.* 8vo. vol. 152. Lond. 1869. 8vo.
- Tables for calculating the Speed of Trains with various loads. *Tract.* folio. vol. 25. Agra, 1878. folio.
- [Another edition.] *Tract.* folio. vol. 37. [Roorkee, 1884.] folio.

- DOWKER, G. On the Water Supply of East Kent, in connection with deep wells and natural springs. *Tract. 8vo. vol. 456.*
Hertford, 1887. 8vo.
- DOWLEANS, A. M. Official classified and descriptive Catalogue of the contributions from India to the London Exhibition of 1862.
Calcutta, 1862. 4to.
- DOWLING, C. H. Practical Formulæ and general rules for finding the Strain and breaking weight of Wrought Iron Bridges, with tables.
Lond. 1866. 8vo.
- A series of Metric Tables, in which the British standard measures and weights are compared with those of the metric system at present in use on the Continent.
Lond. 1864. 8vo.
- DOWNES, C. The building erected in Hyde Park for the Great Exhibition. . . . With scientific description by Charles Cowper.
Lond. 1852. 4to.
- DOWNIE, J. Dynamite ; or, Nobel's safety blasting powder. *Tract. 8vo. vol. 229.*
Glasgow, 1873. 8vo.
- DOWNIE, M. Observations upon the nature and properties of the Atmosphere, etc. *Tract. 8vo. vol. 19.*
Aberdeen, 1801. 8vo.
- DOWNING, D. F., *Capt.* Notes on the third edition of the Treatise on Ordnance. *Tract. 8vo. vol. 436.*
Woolwich, 1886. 8vo.
- DOWNING, S. Elements of Practical Construction, for the use of students in engineering and architecture. Part I. Structures in direct tension and compression. (Atlas of plates.)
Lond. 1875. 8vo. and folio.
- The elements of practical Hydraulics : for the use of students in engineering.
Lond. 1855. 8vo.
- — 2nd edition.
Lond. 1861. 8vo.
- — 3rd edition. Part I.
Lond. 1875. 8vo.
- DOWNTON.—*College of Agriculture.* Prospectus.
Salisbury, 1886–89. 8vo.
- Life and work at the College of Agriculture, Downton.
Salisbury, 1885. 8vo.
- Examination Papers. 1886–90.
Salisbury, 1886–90. 8vo.
- DOWSING, H. J. Griffin's Electrical Engineers' Price-book. Edited by H. J. Dowsing. 1893. *See GRIFFIN, C., and Co.*
- DOWSON, J. E. Decimal Coinage, Weights, and Measures. *Tract. 8vo. vol. 518.*
Lond. 1891. 8vo.
- Decimal Coinage, Weights and Measures popularly explained. 1890. *See MOLESWORTH, Sir G. L., and Dowson, J. E.*
- Gas Power, etc. *Tract. 8vo. vol. 519.*
Lond. 1892. 8vo.
- Gaseous Fuel. A paper, etc. *Tract. 8vo. vol. 468.*
Lond. 1888. 8vo.
- DOWSON, J. E., and A. Tramways : their construction and working.
Lond. 1875. 8vo.

DOYÈRE, L. Conservation des grains par l'ensilage. Recherches et applications expérimentales faites depuis 1850, etc.

Paris, 1862. 8vo.

— Mémoire sur l'ensilage rationnel, etc.

Paris, 1856. 8vo.

DOYLE, J., *Bishop of Kildare, etc.* Letter to T. S. Rice, Esq., M.P., on the establishment of a legal provision for the Irish Poor, and on the nature and destination of Church Property. *Tract. 8vo. vol. 63.*

Dublin, 1831. 8vo.

DOYLE, P. Coal Mining by blasting in the Bengal coal-field. *Tract. folio. vol. 39.*

Roorkee, 1885. folio.

— The Indian Coal-mines. Public opinion in re legislation and inspection. *Tract. 8vo. vol. 406.*

Calcutta, 1886. 8vo.

— Tin-mining in Larut.

Lond. 1879. 8vo.

DOYNE, W. T. The causes which have retarded the construction of Railways in India, referring especially to the Ceylon Railway; with remedies suggested. *Tract. 8vo. vol. 123.*

Lond. 1860. 8vo.

— Queensland Railways. Letter from W. T. Doyne, accompanying his evidence given before the Railway Committee of the Legislative Council of Queensland. *Tract. 8vo. vol. 158.*

Ipswich, 1866. 8vo.

— Report upon the Plains and Rivers of Canterbury, New Zealand.

Christchurch, N.Z., 1864. 4to.

— Second report upon the river Waimakariri and the lower plains of Canterbury, New Zealand.

Christchurch, N.Z., 1865. 4to.

DOYNE, W. T., and BLOOD, W. B. An investigation of the Strains upon the Diagonals of Lattice Beams, with the resulting formulæ. *Tract. 8vo. vol. 499.*

Lond. 1853. 8vo.

(From Min. Proc. Inst. C.E.)

DRACH, S. M. Deductions from Mr. Glaisher's "Meteorological Corrections." *Tract. 8vo. vol. 193.*

Lond. 1851. 8vo.

(From the Philosophical Magazine.)

— An easy rule for formulizing, by the Binomial Theorem, all epicyclical curves with one moving circle (bi-circloids of Perigal). *Tract. 8vo. vol. 84.*

[Lond.] 1849. 8vo.

(From the Philosophical Magazine.)

— A remarkably easy mode of approximating to the Circumference of the Circle. *Tract. 8vo. vol. 139.*

Lond. 1863. 8vo.

(From the Philosophical Magazine.)

DRAINAGE CONSTRUCTION CO. Drainage Construction Company v. City of Chelsea. Pleadings and Evidence. Circuit Court of the United States, District of Massachusetts.

Boston, 1889. 8vo.

DRAKE, B., and MANSFIELD, E. D. See BULLOCK, W. Sketch of a journey through the Western States . . . with a description of Cincinnati in 1826, by B. Drake and E. D. Mansfield. 1827.

DRAKEWALL'S MINE, *Gunnislake.* Special Report on an Accident. By A. E. Pinching.

Lond. 1889. folio.

- DRAPIEZ, A. Notice sur l'établissement géographique de Bruxelles. *Bruxelles*, 1842. 12mo.
- DRAYSON, A. W., *Major-General, R.A.* Practical Military Surveying and sketching. 3rd edition. *London*. 1869. 8vo.
- DREDGE, J. Electric Illumination. By C. Cook, J. Dredge, M. F. O'Reilly, S. P. Thompson, and H. Vivarez. Edited by J. Dredge. With abstracts of specifications having reference to electric lighting prepared by W. L. Wyse. 2 vol. *London*. [1882,] 1885. 4to.
- The Holley memorial statue. Inaugural address, etc. *Tract*. 8vo. vol. 497. [*New York*,] 1890. 8vo.
- Modern Examples of Road and Railway Bridges. 1872. See MAW, W. H., and DREDGE, J.
- Modern French artillery (the St. Chamond, De Bange, Canet and Hotchkiss systems). With illustrations of French warships. Chiefly reproduced from *Engineering*. *London*. 1892. folio.
- The Pennsylvania Railroad: its organization construction and management. *London*. 1879. folio.
- A Record of the Vienna Universal Exhibition of 1873. 1874. See MAW, W. H., and DREDGE, J.
- DREDGE, W. Description of Davies' Rotary Engine, etc. *Tract*. 8vo. vol. 84. *London*. 1849. 8vo.
- DRESDEN.—*Königliche Sächsische Polytechnische Schule*. Bibliotheksordnung. *Dresden*, 1884. 8vo.
- Jahresbericht. *Dresden*, 1864–67. 8vo.
- Katalog der Bibliothek der Königlichen Polytechnischen Schule, und der Königlichen Baugewerkenschule zu Dresden. *Dresden*, 1864. 8vo.
- Mittheilungen. [Edited by Dr. E. Hartig.] Heft. 1–3. *Leipzig*, 1864–73. 8vo.
- Organisationsplan genehmigt durch Verordnung des Königl. Ministeriums des Innern vom 31 Januar, 1865. *Dresden*, 1865. 8vo.
- Programm für das Studienjahr, beziehungsweise Wintersemester 1888–89, 1889–90. *Dresden*, 1888–89. 4to.
- Prüfungsordnung für Candidaten des höhern Lehramtes, etc. *Dresden*, 1879. 8vo.
- Regulativ für die Diplomprüfungen. *Dresden*, 1885. 8vo.
- Statut. *Dresden*, 1878. 4to.
- Statuten für die Krankenkasse der Studirenden. *Dresden*, 1885. 8vo.
- Studienordnung für die Studirenden. *Dresden*, 1878. 8vo.
- Studienpläne. *Dresden*, 1882. 8vo.

- DRESDEN—*continued*.—*Königlich-Sächsische Technische Hochschule*.
 Bericht über die . . . Hochschule auf das Studienjahr 1888–89,
 (1889–90, *etc.*) *Dresden*, 1890, *etc.* 4to.
- Statut. *Dresden*, 1888–90. 4to.
- Verzeichniss der Vorlesungen und Uebungen . . . 1890, (1890–91, *etc.*) *Dresden*, 1890, *etc.* 8vo.
- DRESSER, C. L. Leeds waterworks, 1866. An examination of the report of Mr. Filliter. *Tract*. 8vo. vol. 151. *Leeds*, 1866. 8vo.
- DREW, F. The Jummoo and Kashmir territories. A geographical account. *Lond.* 1875. 8vo.
- DREW, J. On deductions from Meteorological Observations. *Tract*. 8vo. vol. 193. [*Lond.*] 1850. 8vo.
- On the Instruments employed in Meteorological Observations. *Tract*. 8vo. vol. 193. *Southampton*, 1850. 8vo.
- On the present state of Meteorological Science in England. *Tract*. 4to. vol. 45. [*Lond.* 1852.] 4to.
- Practical Meteorology. *Lond.* 1855. 8vo.
- DREWRY, C. S. A memoir on Suspension Bridges, *etc.* *Lond.* 1832. 8vo.
- A treatise on the law and practice of Injunctions. *Lond.* 1841. 8vo.
- DREYFUSS, —. Les ports allemands de la Baltique. 1891. *See* QUINETTE DE ROCHEMONT, E. T., *Baron*, and DREYFUSS, —.
- DRINKER, H. S. A treatise on Explosive Compounds, Machine Rock-drills, and Blasting. *New York*, 1883. 4to.
- Tunneling, Explosive Compounds, and Rock-drills. *New York*, 1878. 4to.
- DRINKWATER, J. Map of the Isle of Man from a trigonometrical survey by B. Smythe. *Liverpool*, 1826. 8vo.
- DRIVER, C. H. Address of the President of the Civil and Mechanical Engineers' Society. *Tract*. 8vo. vol. 522. *Lond.* 1878. 8vo.
- D'ROZARIO, M. The practical Tank-builder. *Madras*, 1869. 8vo.
- DRU, L. La péninsule malaise. Projets de percement de l'isthme Krau-Chai-Ya-Talung. *Paris*, 1881. 8vo.
- Projet de canal entre le Don et le Volga. Mémoire à l'appui du projet. *Paris*, 1886. 4to.
- Projet de percement de l'isthme de Krau. Communication faite à la Société des Ingénieurs civils, *etc.* *Paris*, 1882. 8vo.
- DRUID, *Steamship*. Explosion of the "Druid" steamboat. Report. *Lond.* 1873. folio.
- DRUMMOND, H., *M.P.* A letter to the people of England on the Invasion. *Tract*. 8vo. vol. 219. *Lond.* 1859. 8vo.

- DRY CREEK, *S. Australia*. Railway from Dry Creek to Teetree. *Estimate, etc.* Adelaide, 1878. folio.
- DRYSDALE, C. On Cholera; its nature and treatment. Being the debate in the Harveian Medical Society of London. *Tract.* 8vo. vol. 194. Lond. 1866. 8vo.
- DRYSDALE, J., and HAYWARD, J. W. Health and comfort in House Building; or ventilation with warm air by self-acting suction power. 2nd edition. Lond. 1876. 8vo.
- 3rd edition. Lond. 1890. 8vo.
- DRZEWIECKI, S. Les oiseaux considérés comme des aéroplanes animés. Essai d'une nouvelle théorie du vol. *Tract.* 8vo. vol. 489. Clermont, 1889. 8vo.
- DUB, J. Der Elektromagnetismus. Berlin, 1861. 8vo.
- Die Anwendung des Elektromagnetismus mit besonderer Berücksichtigung der Telegraphie. Berlin, 1863. 8vo.
- DUBIEF, L. F. Guide du féculier et de l'amidonniér, etc. 3^e édition. Paris, [1883 ?] 8vo.
- DUBLIN.—[*Barracks.*] Interim Report on the Sanitary Condition of the Barracks; by Mr. Rogers Field. Lond. 1889. folio.
- [*Exhibition, 1865.*] Kingdom of Italy. Official catalogue, illustrated with engravings, published by order of the Royal Italian commission. 2nd edition. *Tract.* 8vo. vol. 155. Turin, 1865. 8vo.
- Reports of the juries, and lists of their awards. Class B—Section V. (C)—Carriages. Class C—Section XVI. (A)—Saddlery and harness. *Tract.* 8vo. vol. 155. Dublin, 1865. 8vo.
- [*Explosions.*] Report on the circumstances attending an Explosion at the Firework Factory of Mr. J. Hodsman, at Love Lane West, Dublin, on the 24th May, 1887. Lond. 1887. folio.
- [*Geological Society.*] See GEOLOGICAL SOCIETY OF DUBLIN.
- [*Harbour.*] Considerations on the necessity and importance of an Asylum Port in the Bay of Dublin, including remarks on the Harbour erecting at Howth. By a Seaman. *Tract.* 8vo. vol. 280. Dublin, 1811. 8vo.
- A letter . . . to the Directors-General of Inland Navigation respecting the Harbour of Dublin. By Civis. *Tract.* 8vo. vol. 13. Dublin, 1805. 8vo.
- A letter concerning the harbour of Dublin, by a Dublin merchant. With additional remarks by an Observer. *Tract.* 8vo. vol. 13. Dublin, 1814. 8vo.
- Observations on the subject of the Dunleary Asylum Harbour as connected with the Trade and general interests of the city of Dublin. By Censor. *Tract.* 8vo. vol. 13. 1816. 8vo.
- [*Royal College of Science for Ireland.*] See ROYAL COLLEGE OF SCIENCE.

- DUBLIN—*continued*.—[*Royal Engineers Corps.*] See ROYAL ENGINEERS.
- [*Royal University of Ireland.*] See ROYAL UNIVERSITY OF IRELAND.
- [*Sewerage and Drainage.*] Report of the Royal Commissioners, *Dublin*, 1880. folio.
- [*University.*] Calendar. 1868 (1869, *etc.*).
Dublin, 1868, *etc.* 8vo.
- [*Water Supply.*] Report of the Commissioner, *etc.*
Dublin, 1860. folio.
- DUBLIN AND DROGHEDA RAILWAY. Report on the Dublin and Drogheda Railway Bill. *Lond.* 1836. folio.
- Report of the Directors, *etc.* *Tract.* 8vo. vol. 79.
Dublin, 1839. 8vo.
- DUBLIN AND KINGSTOWN RAILWAY. Copies of Correspondence and Papers relating to the Railway. *Lond.* 1843. folio.
- Correspondence (Minutes of Evidence, *etc.*) on the Dublin and Kingston Railway Bill. *Lond.* 1833. folio.
- Returns of the amount of each revision of the Valuation. *Lond.* 1873. folio.
- DUBLIN AND WRIGHTSVILLE RAILROAD COMPANY. Annual report . . . to the stockholders, 1885.
Savannah, 1886. 8vo.
- DUBLIN STEAM PACKET COMPANY. Form of Contract for building steam-vessels, engines, and boilers. *Tract.* folio. vol. 5.
[1836.] folio.
- DUBOCQ, C. Commission d'enquête sur les chemins de fer. Rapport de . . . M. Dubocq. (Mission en Allemagne.) 1862. See LAN, C., MOUSETTE, —, BERGERON, C., and DUBOCQ, C.
- DU BOIS, A. J. The elements of Graphical Statics and their application to framed structures. 2 vols. *New York*, 1883. 8vo.
- The Strains in Framed Structures. *New York*, 1884. 4to.
- DU BOIS-REYMOND, E. On Animal Electricity : being an abstract of the discoveries of E. Du Bois-Reymond. Edited by H. B. Jones. *Lond.* 1852. 8vo.
- DUBOSQUE, J. Études théoriques et pratiques sur les murs de soutènement et les ponts et viaducs en maçonnerie. 2^e édition.
Paris, [1881.] 8vo.
- — 4^e édition. *Paris*, [1887?] 8vo.
- DUBOST, L. Traité pratique d'électricité industrielle. 1889. See CADIAT, E., and DUBOST, L.
- DU BOURDIEU, F. Moral Assassination in Ireland. *Tract.* 8vo. vol. 85. *Belfast*, [1848.] 8vo.
- DUBUAT, L. G. Principes d'hydraulique et de pyrodynamique, vérifiés par un grand nombre d'expériences faites par ordre du gouvernement. [3^e édition.] 3 vols. *Paris*, 1816. 8vo.

- DU BUIT, P., and SABATHIER, P. Remarks on an arrangement of Marine Engine. *Tract. folio. vol. 38.* *Lond.* [1886?] folio.
- DU CAMP, M. Les beaux-arts à l'Exposition universelle de 1855. Peinture—sculpture. *Paris*, 1855. 8vo.
- DU CANE, Sir E. F. An account of the manner in which sentences of Penal Servitude are carried out in England. *Lond.* 1882. 8vo.
- Memorandum on the construction of Police Stations. *Tract. folio. vol. 29.* *Lond.* 1875. folio.
- DUCAT, W. M. Report on project for Reclaiming Land, etc. 1863. *See INDIA, BOMBAY.*—[*Reclamation of Land.*]
- DUCHATELET, A. J. B. PARENT. *See PARENT-DUCHATELET.*
- DUCHÉ, G., and OTHERS. Aide-mémoire de l'ingénieur-électricien. Recueil de tables, formules, etc. *Paris*, 1888–89. 8vo.
- DÜCKER, F. F. VON. Petroleum und Asphalt in Deutschland. Zweite Auflage. *Tract. 8vo. vol. 330.* *Minden*, 1881. 8vo.
- DUCKHAM, F. E. The Docks of London on the North of the Thames, etc. 1893. *See CARR, R., and DUCKHAM, F. E.*
- The Pneumatic Grain Elevator and Conveyor. *Tract. 4to. vol. Lond.* [1894.] 4to.
- DUCPETIAUX, E. Mémoire sur le paupérisme dans les Flandres. *Bruxelles*, 1850. 8vo.
- DUCREST, C. L. Traité d'hydrauférie, ou l'art d'élèver l'eau porté à sa perfection, appliqué aux principaux usages de la société, et particulièrement à la construction des canaux navigables. *Paris*, 1809. 8vo.
- DUCREUX, B. *See BERTHAULT-DUCREUX.*
- DUDEBOUT, A. Architecture navale. Théorie du navire. 1890–93. *See POLLARD, J., and DUDEBOUT, A.*
- Note sur les expériences de résistance de carènes, exécutées au port de Brest sur des modèles de "l'Océan." *Brest*, 1881. 4to.
- DUDFIELD, T. O. An inaugural Address . . . on Metropolitan Sanitary Administration. *Tract. 8vo. vol. 407.* *Lond.* 1884. 8vo.
- DUDLEY. An Act for the better supplying the Borough of Dudley and the neighbourhood thereof with Water. *Lond.* 1834. folio.
- An Act for enabling the Waterworks Company to raise a further sum of Money: and for amending the Provisions of the Act relating to such Company. *Lond.* 1852. folio.
- DUDLEY CANAL. Act for making a Canal from Dudley . . . to join the Stourbridge Navigation at a place called Black Delph. *Lond.* 1776. folio.

- DUDLEY CANAL—*continued*. Act for the Extension of the Dudley Canal to Birmingham. *Lond.* 1785. folio.
- Act for making a Canal from the Dudley Canal . . . to the Worcester and Birmingham Canal. *Lond.* 1793. folio.
- Act to enable the proprietors to raise a further sum of money for completing the . . . Navigation. *Lond.* 1796. folio.
- DUDLEY, C. B. Fuel Oil. *Tract. 8vo. vol.* 489.
[*Philadelphia,*] 1888. 8vo.
- The chemical composition and physical properties of Steel Rails. *Tract. 8vo. vol.* 458. *Easton, Pa.,* 1879. 8vo.
- DUDLEY, D. Metallum Martis : or, iron made with pit-coale, sea-coale, &c. And with the same fuell to melt and fine imperfect mettals, and refine perfect mettals. *Lond.* [1870 ?] 12mo.
(A reprint of the edition of 1665.)
- DUDLEY, P. H. Boston and Albany Railroad Company. Diagrams of maintenance of way, from inspections of October, 1881, April, 1882, and September, 1882; also, roadmaster's markings for September, 1882, steel rails, alternate joints, gravel ballast, passenger and freight service. *Tract. folio. vol.* 44.
New York, 1882. folio.
- DUDLEY, S. B. W. The Tocsin ; or, a review of the London Police establishments, with hints for their improvement, and for the prevention of calamitous fires, *etc.* *Tract. 8vo. vol.* 57.
Lond. 1828. 8vo.
- DUFFIELD, P. W. Losses in Gold Amalgamation, *etc.* 1890.
See MACDERMOTT, W., and DUFFIELD, P. W.
- DUFFY, R. Ferro-Carril Interocéánico entre Bahia Blanca y Talcahuano. Informe sobre la traza proyectada. *Tract. 8vo. vol.* 428.
Buenos Aires, 1886. 8vo.
- DUFFY, T. Duffy's Wave Motor as a source of Power for various purposes. *Tract. 8vo. vol.* 424. *San Francisco,* 1886. 8vo.
- DUFOUR, C. Étude sur les presses à forger.
Saint-Etienne, 1892. 8vo.
- DUFOUR, G. H. Description du pont suspendu en fil de fer, construit à Genève. *Genève,* 1824. 4to.
- DUFURNY, A. Guide du batelier. 1889-93. *See* BELGIUM.—
[*Inland Navigation.*]
- DUFRENOY, A., and ÉLIE DE BEAUMONT, J. B. A. L. L. Explication de la carte géologique de la France. Vol. I. (Atlas.)
Paris, 1841. 4to. and folio.
- DUGDALE, Sir W. The history of Imbanking and Draining of divers fens and marshes, both in foreign parts and in this kingdom, and of the improvements thereby . . . Revised by C. N. Cole. 2nd edition. *Lond.* 1772. folio.

- DUGDALE, *Sir W.*—*continued.* The history of St. Paul's Cathedral in London, from its foundation, *etc.* Likewise, an historical account of the northern cathedrals, and chief collegiate churches in the province of York. 2nd edition. Published by Edward Maynard, D.D. *Lond.* 1716. folio.
- Life, diary, and correspondence. Edited by William Hamper. *Lond.* 1827. 4to.
- DUGUET, C. Limite d'élasticité et résistance à la rupture. 2 pt. *Paris*, 1882–85. 8vo.
- DUHAMEL, J. P. F. Expériences sur quelques effets de la poudre à canon. *Tract.* 8vo. vol. 225. *Paris*, 1846. 8vo.
(Mémoires de l'Académie Royale des Sciences.—1750.)
- DUJARDIN-BEAUMETZ, F. Histoire graphique de l'industrie houillère en Angleterre depuis 1865, d'après les documents officiels. *Paris*, 1889. folio.
- Histoire graphique de l'industrie houillère en Belgique depuis 1865, *etc.* *Paris*, 1888. 4to.
- Histoire graphique de l'industrie houillère en France depuis 1865, *etc.* *Paris*, 1888. 4to.
- Matériel et procédés de l'exploitation des mines à l'Exposition universelle de 1889. (Atlas of plates.) *Paris*, 1890. 8vo. and folio.
- DUKINFIELD. The Dukinfield and Denton Local Boards of Health Bill. Minutes of Proceedings and Minutes of Evidence. *Lond.* 1869. folio.
- Report on the Explosion at Dukinfield Colliery. *London*, 1874. folio.
- DULAU & Co. A Catalogue of Foreign Books, *etc.* *Lond.* 1845. 8vo.
- DULEAU, A. Essai théorique et expérimental sur la résistance du fer forgé, avec des applications des résultats de ces expériences à l'art des constructions. *Paris*, 1820. 4to.
- DULIER, —, *Col.* A natural process of dissolution for Smoke and Fogs. *Tract.* 8vo. vol. 519. *Lond.* [1892.] 8vo.
- DULLO, —, *Dr.* Torf-Verwerthungen in Europa. *Tract.* 8vo. vol. 235. *Berlin*, 1861. 8vo.
- DULUTH.—*Chamber of Commerce.* Annual Report of the trade and commerce of the city of Duluth, Minnesota, for . . . 1887. *Duluth*, 1888. 8vo.
- DUMAS, A. Projet d'achèvement du canal de Panama. *Paris*, 1891. 8vo.
- DUMAS, C. A. J. Vues générales sur l'entretien des routes. 1840. *See ANONYMOUS.*
- DUMAS, J. Études sur les inondations. Causes et remède. *Paris*, 1857. 8vo.
- La science des fontaines, ou moyen sûr et facile de créer partout des sources d'eau potable. [2nd edition.] *Paris*, 1857. 8vo.

- DUMAS, J. B. *Traité de chimie appliquée aux arts.* 8 vols. (Atlas of plates.) *Paris*, 1828–46. 8vo. and 4to.
- DUMAS, J. B., et BOUSSINGAULT, J. B. *Essai de statique-chimique des êtres organisés.* 3^e édition. *Paris*, 1844. 8vo.
- DUMAS, L. *De l'entretien des routes d'empierrement à l'état normal, ou du système du balayage.* *Tract.* 8vo. vol. 74. *Paris*, 1842. 8vo.
- DUMAS-VENTE, C., *Capt.* *Notice sur les ports de la Manche et de la mer du Nord. Première partie. De la frontière Belge au cap Grisnez.* (Atlas of plates.) *Paris*, 1869. 8vo. and 4to.
- DUMBELL, J. *A letter relative to a Bridge at Runcorn, etc.* *Tract.* 8vo. vol. 14. *Lond.* 1813. 8vo.
- Letter . . . to C. C. Western, Esq., M.P., on various political questions. *Tract.* 8vo. vol. 63. *Warrington*, 1830. 8vo.
- Observations relative to making Manchester and Warrington into sea-ports ; with remarks on Mr. Chapman's report : and hints in respect to Runcorn bridge. 2nd edition. *Tract.* 8vo. vol. 6. *Lond.* 1826. 8vo.
- DU MESNIL-MARIGNY, J. *Solution of problems relative to Protection and Free Trade.* [By J. Du Mesnil-Marigny. 1860 ?] *See ANONYMOUS.*
- DUMFRIES. *An Act (An Act to explain and amend, etc.) for supplying the Burghs of Dumfries and Maxwelltown and suburbs with Water.* 2 pt. *Lond.* 1850–1852. folio.
- DU MONCEL, T., *Count.* *De l'éclairage électrique.* *Paris*, 1883. 8vo.
- *Détermination des éléments de construction des électro-aimants.* *Tract.* 8vo. vol. 352. *Paris*, 1882. 8vo.
- *Elements of Construction of Electro-Magnets.* Translated from the French, etc. *Lond.* 1883. 8vo.
- *Exposé des applications de l'électricité, etc.* 3^e édition. 5 vols. *Paris*, 1872–78. 8vo.
- *Le microphone, le radiophone, et le phonographe.* *Paris*, 1882. 8vo.
- *Le téléphone.* 5^e édition, revue et corrigée par F. Géraldy. *Paris*, 1887. 8vo.
- *The Telephone, the Microphone, and the Phonograph.* Authorised translation, etc. *Lond.* 1879. 8vo.
- *Traité théorique et pratique de télégraphie électrique, à l'usage des employés télégraphistes, des ingénieurs, des constructeurs, et des inventeurs.* *Paris*, 1864. 8vo.
- DU MONCEL, T., *Count*, and GERALDY, F. *L'électricité comme force motrice.* *Paris*, 1883. 8vo.
- *Electricity as a Motive Power : translated, etc.* *Lond.* 1883. 8vo.

- DU MONCEL, T., *Count*, and PREECE, W. H. Incandescent Electric Light: with particular reference to the Edison Lamps at the Paris Exhibition. 2nd edition, revised. *New York*, 1882. 12mo.
- DUMONT, A. Les eaux de Lyon et de Paris, etc. (Atlas of plates.) *Paris*, 1862. 4to. and folio.
- Voies navigables de la France. (Map folding in 8vo.) *Paris*, 1861. 8vo.
- DUMONT, A., and GEORGES. Les eaux de Nîmes, de Paris, et de Londres. (Atlas of plates.) *Paris*, 1874. 4to. and folio.
- DUMONT, A. H. Carte géologique de l'Europe. *Paris et Liège*, [1860 ?] folio.
- Mémoire sur la constitution géologique de la province de Liège. *Bruxelles*, 1832. 4to.
- DUMONT, GEORGES. Traité pratique de l'électricité appliquée à l'exploitation des chemins de fer. *Paris*, 1885. 8vo.
- DUMONT, GEORGES, LEBLANC, M., and LA BÉDOYÈRE, E. DE. Dictionnaire théorique et pratique d'électricité et de magnétisme. *Paris*, [] 8vo.
- DUMONT, GUSTAVE. Des affaissements du sol produits par l'exploitation houillère. *Liège*, 1871. 4to.
- DUNBAR, J. The practical Paper Maker. *Leith*, 1881. 8vo.
- DUNCAN, J. Observations on the affairs and policy of the Eastern Counties Railway Company. *Tract. 8vo. vol. 416.* *Lond.* 1851. 8vo.
- DUNCAN, T. Borough of Liverpool. Report . . . on extension of water-supply and new works. *Tract. 8vo. vol. 151.* *Liverpool*, 1866. 8vo.
- Report of the Waterworks Engineer [for 1866], etc. *Tract. 8vo. vol. 151.* *Liverpool*, 1866. 8vo.
- DUNCAN, W. Map of the county of Dublin. 1821. folio.
- DUNCAN, W. A. Tariffs. Comparative table of the tariffs of New South Wales, Victoria, South Australia, Queensland, and Tasmania. *Tract. 8vo. vol. 295.* *Sydney*, 1876. 8vo.
- DUNCAN, W. W. Manual of British and foreign Tramway Companies. 1883, etc. *Lond.* 1883, etc. 8vo.
- Manual of Tramway Companies in the United Kingdom. *Tract. 8vo. vol. 301.* *Lond.* 1877. 8vo.
- DUNDALK WESTERN RAILWAY COMPANY. Prospectus. *Tract. 8vo. vol. 302.* *Lond.* 1837. 8vo.
- DUNDEE.—[*Free Library.*] Report for the year ending Nov. 1881, (1885, 1887.) *Dundee*, 1881-87. 8vo.

- DUNDEE—*continued*.—[*Harbour*.] Excerpt from Minutes of a . . . Meeting of the Trustees . . . held March 5, 1855. With a report on the state of the harbour, *etc.* *Tract.* 4to. vol. 41. [1855.] 4to.
- Proceedings of a Committee of Merchants . . . and others, interested in the Improvement of the Harbour of Dundee, *etc.* *Tract.* 8vo. vol. 76. *Dundee*, 1814. 8vo.
- Report by the Committee of management, relative to the plans of the new ferry harbours at Dundee and the opposite coast of Fife, proposed by Mr. Telford. *Tract.* 4to. vol. 34. *Dundee*, 1821. 4to.
- [University College.] Calendar, Session 1885–86 (1886–87, *etc.*). *Dundee*, 1885, *etc.* 8vo.
- DUNDONALD, *Earl of* [ARCHIBALD COCHRANE]. Brief extracts from memoranda of the Earl of Dundonald on the use, properties, and products of the Bitumen and Petroleum of Trinidad. *Tract.* folio. vol. 6. *Lond.* 1857. folio.
- A treatise showing the intimate connection that subsists between Agriculture and Chemistry. *Lond.* 1803. 4to.
- DUN ECHT OBSERVATORY. Publications. Vols. 1 and 2. *Aberdeen*, 1876–77. 4to.
- DUNEDIN. Report of Dunedin sanitary commission on Sewerage and Drainage. *Dunedin*, 1865. folio.
- *New Zealand Exhibition*, 1865. Reports and awards of the jurors; and Appendix. *Dunedin*, 1866. 8vo.
- DUNEDIN AND OCEAN BEACH RAILWAY. [Official Reports on the] Construction of the Railway. *Dunedin*, 1874–75. folio.
- DUNEDIN AND PORT CHALMERS RAILWAY. Correspondence relating to the Dunedin and Port Chalmers, and Southern Trunk Railways. *Dunedin*, 1870–73. folio.
- Engineering report on the Port Chalmers and Dunedin Railway. By John Millar. *Dunedin*, 1869. folio.
- DUNFERMLINE. Reports of Surveying Officers, and minutes of evidence on the Dunfermline Waterworks Bill. *Lond.* 1847. folio.
- DUNKIN, A. J. A report of the substance of the several speeches of A. J. Dunkin at the special general meeting of the British Archæological Association, *etc.* *Tract.* 8vo. vol. 68. *Lond.* 1845. 8vo.
- DUNKIN, E. Obituary notices of Astronomers. *Lond.* 1879. 8vo.
- DUNKIRK. Construction des écluses du bassin de l'ouest à Dunkerque et des écluses du bassin à flot de Gravelines. Par A. Plocq. (Case of plates.) (Lithographed.) *Paris*, 1874. 8vo.
- Port et rade de Dunkerque. Notice hydrographique et géographique, historique, technique et statistique. Par A. Plocq. (Lithographed.) *Dunkerque*, 1873. 8vo.

- DUNKIRK**—*continued*. Service spécial des ports, phares et balises. Écluse de barrage. Description, calculs de résistance, décompte d'exécution et tableau d'équilibre d'un pont tournant à deux volées. Par A. Plocq. *Paris*, 1874. 8vo.
- DUNLEARY**. Additional remarks on an intended Asylum Port near Dunleary; comprising observations on the last grant made by Parliament for Howth harbour. By a Seaman. *Tract*. 8vo. vol. 280. [*Dublin?* 1809.] 8vo.
- DUNLOP, N.** A paper . . . upon ancient and modern Ships, with special reference to the applications of science in their structure and outfit. *Tract*. 8vo. vol. 464. *Glasgow*, 1883. 8vo.
- DUNMORE HARBOUR**. Estimate and Act for improving Dunmore Harbour. *Lond.* 1814–18. folio.
- DUNN, E. J.** Geological sketch map of Cape Colony. *Lond.* 1875. 8vo.
- DUNN, M.** Observations upon the line of Railroad projected by Mr. Landale, from Dundee to the valley of Strathmore. *Tract*. 4to. vol. 12. *Dundee*, 1825. 4to.
- Prospectus of a Railway from Newcastle to Morpeth, to be called the Northumberland Railway. *Tract*. 8vo. vol. 260. *Newcastle-upon-Tyne*, 1835. 8vo.
- A treatise on the winning and working of Collieries. . . . 2nd edition. *Newcastle-upon-Tyne*, 1852. 8vo.
- DUNN, T.** Improvements in Railway Machinery. [Being a specification of Dunn's patents.] *Manchester*, 1860. folio.
- DUNSCOMBE, C.** Rehousing of the Artizan and Labouring Classes in sanitary dwellings. *Tract*. folio. vol. 43. *Liverpool*, 1889. folio.
- Report on Sewerage of Cape Town. 1891. *See CAPE TOWN*.— [*Sewerage*.]
- DUNTHORNE, R.** Remarks on certain queries delivered in by the Rev. Mr. Dickinson, at a meeting held at Wisbeach on Wednesday, the 5th of September, 1770. *Tract*. 4to. vol. 54. [1770.] 4to.
- DUPAIN-TRIEL, J. L.** Tableau géographique de la navigation intérieure du territoire de l'Empire français, etc. *Paris*, 1811. 8vo.
- DUPASQUIER, A.** Des eaux de source et des eaux de rivière. *Paris*, 1840. 8vo.
- DUPIN, C., Baron.** Applications de géométrie et de mécanique; à la marine, aux ponts et chaussées, &c., pour faire suite aux 'Développements de géométrie.' *Paris*, 1822. 4to.
- De la structure des vaisseaux anglais, considérée dans ses derniers perfectionnements. *Tract*. 4to. vol. 19. *Londres*, 1817. 4to. (From the *Phil. Trans.*)

DUPIN, C., *Baron—continued.* Développements de géométrie, avec des applications à la stabilité des vaisseaux, aux déblais et remblais, au défillement, à l'optique, &c. ; pour faire suite à la Géométrie descriptive et à la Géométrie analytique de M. Monge.

Paris, 1813. 4to.

— Discours aux Chambres des Députés, session de 1829, dans la discussion de la loi de finance de 1830. *Tract.* 8vo. vol. 17.

Paris, 1829. 8vo.

— Du commerce et de ses travaux publics, en Angleterre et en France. Discours, etc. *Tract.* 8vo. vol. 17. Paris, 1823. 8vo.

— Essai historique sur les services et les travaux scientifiques de G. Monge. Paris, 1819. 4to.

— Forces productives et commerciales de la France. 2 vols. in 1.

Paris, 1827. 4to.

— Influence du commerce sur le savoir, sur la civilisation des peuples anciens, et sur leur force navale ; discours, etc. *Tract.* 8vo. vol. 17.

Paris, 1822. 8vo.

— Introduction au cours de mécanique appliquée aux arts, ouvert près du Conservatoire des arts et métiers. *Tract.* 8vo. vol. 17.

Paris, 1821. 8vo.

— Mathematics, practically applied to the useful and fine arts, adapted to the state of arts in England by G. Birkbeck, M.D.

Halifax, 1854. 8vo.

— Mémoires sur la marine et les ponts et chaussées de France et d'Angleterre, etc.

Paris, 1818. 8vo.

— Notice nécrologique sur J. Rennie. *Tract.* 8vo. vol. 17.

Londres, 1821. 8vo.

— Progrès des sciences et des arts de la marine française, depuis la paix ; discours, etc. *Tract.* 8vo. vol. 17. Paris, 1820. 8vo.

— Rapport d'une commission spéciale relatif au travail des enfants dans les manufactures, usines ou ateliers. *Tract.* 8vo. vol. 63.

Paris, 1840. 8vo.

— Rapport fait au nom de la commission préparatoire chargée d'examiner la proposition de M. le Baron de Férussac, sur un enquête relative à la situation des routes et des canaux. *Tract.* 8vo. vol. 17.

Paris, 1831. 8vo.

— Summary of an opening lecture in Paris, on Industrial Education. *Tract.* 8vo. vol. 67.

Manchester, 1836. 8vo.

— Tableau comparé de l'instruction populaire avec l'industrie des départemens d'après l'exposition de 1827, etc. *Tract.* 8vo. vol. 17.

Paris, 1828. 8vo.

— Tableau de l'architecture navale militaire, aux dix-huitième et dix-neuvième siècles. *Tract.* 4to. vol. 6. Paris, 1815. 4to.

— Voyages dans la Grande-Bretagne, entrepris relativement aux services publics de la guerre, de la marine, et des ponts et chaussées, en 1816, 1817, 1818 et 1819. (Atlas of plates.) 3 vols.

Paris, 1820-24. 4to. and folio.

- DUPIN, C., *Baron—continued*. The Commercial Power of Great Britain; exhibiting a complete view of the public works of this country, under the several heads of streets, roads, canals, &c. Translated from the French. 2 vols. (Atlas of plates.)
Lond. 1825. 8vo. and 4to.
 (Being a translation of the 3rd vol. of the preceding.)
- DUPLAIS, P. A treatise on the manufacture and distillation of Alcoholic Liquors, etc. *Philadelphia*, 1871. 8vo.
- DUPLESSIS, J. Traité du nivellement. *Paris*, 1877. 8vo.
- DUPONY, —. Report . . . on the Process of Dr. Boucherie, for the Preservation of Timber, 1856. *See* LEROUX, —, SOCHET, —, and DUPONY, —.
- DUPRÉ, A. Théorie mécanique de la chaleur. *Paris*, 1869. 8vo.
- DUPUIT, J. Des inondations. Examen des moyens proposés pour en prévenir le retour. *Paris*, 1858. 8vo.
- Études théoriques et pratiques sur le mouvement des eaux courantes, suivies de considérations relatives au régime des grandes eaux, au débouché à leur donner, et à la marche des alluvions dans les rivières à fond mobile. *Paris*, 1848. 8vo.
- — 2^e édition. *Paris*, 1863. 4to.
- Traité de l'équilibre des voûtes et de la construction des ponts en maçonnerie. (Atlas of plates.) *Paris*, 1870. 4to.
- Traité théorique et pratique de la conduite et de la distribution des eaux, suivi d'un extrait de l'essai sur les moyens de conduire, d'élever et de distribuer les eaux, par Genieys; et de la description des filtres naturels de Toulouse, par d'Aubuisson. (Atlas of plates.) *Paris*, 1854. 4to.
- DUPUY, C. Le viaduc de l'Erdre: traité pratique pour la construction des ponts métalliques en arcs. (Atlas of plates.)
Paris, 1879. 8vo. and 4to.
- DUPUY DE LÔME, S. C. H. L. Mémoire sur la construction des bâtiments en fer. (Atlas of plates.)
Toulon and Paris, 1843–44. 4to. and folio.
- Navigation fluviale: touage par chaînes sans fin. *Tract.* 4to.
vol. 90. *Paris*, 1883. 4to.
- DU PUY DE PODIO, L. Études militaires sur les chemins de fer. *Paris*, 1869. 8vo.
- DUQUESNAY, —. Résistance des matériaux. [With a bibliography.] *Paris*, [1890?] 8vo.
- DURAND, J. L. N. Précis des leçons d'architecture données à l'École royale polytechnique. 2 vols. Nouvelle édition.
Paris, 1823–25. 4to.
- DURAND-CLAYE, A. Assainissement de la Seine.
Paris, 1885. 4to.
- Assainissement de la Seine: utilisation agricole des eaux d'égout et de leurs dépôts. *Tract.* folio. *vol.* 26. [*Paris*,] 1872. folio.

- DURAND-CLAYE, A.—*continued*. Enquête sur les stations agromomiques. *Tract. 8vo. vol. 310.* Paris, 1878. 8vo.
- État de la question des eaux d'égout en France et à l'étranger. *Tract. 8vo. vol. 275.* Nancy, 1877. 8vo.
- Hydraulique : expériences sur les affouillements. *Tract. 8vo. vol. 249.* Paris, 1873. 8vo.
- Les pompes centrifuges simples et accouplées. *Tract. 8vo. vol. 249.* [Paris,] 1873. 8vo.
- Rapport sur le dessèchement du lac Copais (Grèce). *Tract. 8vo. vol. 469.* Paris, 1888. 8vo.
- Rapport sur les gisements du guano du Pérou. *Tract. 8vo. vol. 254.* Paris, 1875. 8vo.
- Situation de la question des eaux d'égout et de leur emploi agricole en France et à l'étranger. *Tract. 8vo. vol. 307.* Paris, 1874. 8vo.
- Sur la température des eaux souterraines de Paris pendant le mois de décembre 1879. *Tract. 4to. vol. 83.* Paris, 1880. 4to.
- DURAND-CLAYE, A., and MILLE, A. [For works by A. Mille and A. Durand-Claye :] *see* MILLE, A., and DURAND-CLAYE, A.
- DURAND-CLAYE, C. L. Chimie appliquée à l'art de l'ingénieur. Part 1. Paris, 1885. 8vo.
- DURAND-CLAYE, C. L., and DEBRAY, P. Permeability of Cements. Translated and edited by L. M. Haupt. *Tract. 8vo. vol. 477.* Philadelphia, 1889. 8vo.
- DURAND-CLAYE, C. L., and MARX, L. Routes et chemins vicinaux. Paris, 1885. 8vo.
- DURAND-CLAYE, C. L., PELLETAN, A., and LALLEMAND, C. Lever des plans et nivellement. Paris, 1889. 8vo.
- DURAND-CLAYE, *Mme.* E. Alfred Durand-Claye, 1841–88, [1888,] 8vo.
- DURANT, L. De la production et l'emploi de la vapeur, *etc.* 1890. *See* LENCAUCHEZ, A., and DURANT, L.
- DURBAN. Durban Waterworks. [Article contained in a portion of the "Christmas Annual," 1886.] *Tract. folio. vol. 40.* [Durban,] 1886. folio.
- DURELL, D. V. A letter to Sir F. B. Head, Bart., on the injury caused to the Coal Trade of Warwickshire and Staffordshire in the markets on the line of the Grand Junction Canal, by the unequal charges for the tonnage of coals on that canal. *Tract. 8vo. vol. 66.* Oxford, 1845. 8vo.
- DURFEE, W. F. In memoriam : A. C. Hobbs, *etc.* *Tract. 8vo. vol. 509.* [New York,] 1853. 8vo.

- DURHAM COLLEGE OF SCIENCE. Calendar, 1883-84 (1884-85, etc.). *Newcastle-upon-Tyne*, 1883, etc. 8vo.
- DURHAM UNIVERSITY. Calendar, with Almanack, 1886, (1887, etc.) *Durham*, 1886, etc. 8vo.
- DÜRRE, E. F. Allgemeine Hüttenkunde. *Leipzig*, 1877. 12mo.
- Die Anlage und der Betrieb der Eisenhütten. 4 vols. (Atlases of plates. *Leipzig*, 1882. 4to.
- Handbuch des Eisengiessereibetriebes: unter Berücksichtigung verwandter Zweige. Dritte . . . Auflage. *Leipzig*, 1892. 8vo. (In progress.)
- DUTCH EAST INDIES. Jaarboek van het Mijnwezen in Nederlandsch Oost-Indie. *Amsterdam*, 1872, etc. 8vo.
- DUTENS, J. Histoire de la navigation intérieure de la France, avec une exposition des canaux à entreprendre pour en compléter le système. 2 vols. *Paris*, 1829. 4to.
- Mémoires sur les travaux publics de l'Angleterre. *Paris*, 1819. 4to.
- DUTTON, C. E. A general description of the Volcanic Phenomena found in that portion of Central America traversed by the Nicaragua Canal. The possible effects of earthquake shocks on the structures of the canal. *Tract*. 4to. vol. 118. *New York*, 1891. 4to.
- Tertiary history of the Grand Cañon District, with atlas. [*U.S. Geol. Survey*, Monograph II.] *Washington*, 1882. 4to.
- DUTTON, F. South Australia and its mines, with an historical sketch of the colony, under its several administrations, to the period of Captain Grey's departure. *Lond.* 1846. 8vo.
- DUVAL, V. Notice sur un nouveau système de ponts en fonte. 1840. See MARCELLIS, C., and DUVAL, V.
- DUVIVIER, C. P. G. Encyclopédie élémentaire de l'antiquité, ou origine, progrès, état de perfection des arts et des sciences chez les anciens, etc. 4 vols. *Paris*, 1830. 8vo.
- DWARRIS, Sir F. Railway results, or the gauge deliverance. *Tract*. 8vo. vol. 416. *Lond.* 1845. 8vo.
- DWELSHAUVERS-DERY, V. A. E. Calcul du rayon des robines des machines d'extraction. *Tract*. 8vo. vol. 219. *Liège*, 1871. 8vo.
- De la régularisation des machines. *Tract*. 8vo. vol. 219. *Liège*, 1872. 8vo.
- Les découvertes récentes concernant la machine à vapeur. *Tract*. 8vo. vol. 427. *Paris*, 1880. 8vo.
- L'enseignement de la mécanique appliquée. *Tract*. 8vo. vol. 437. *Liège*, 1887. 8vo.
- Étude expérimentale calorimétrique de la machine à vapeur. [With a bibliography.] *Paris*, [1892?] 8vo.

- DWELSHAUVERS-DERY, V. A. E.—*continued*. Les laboratoires de mécanique. *Tract.* 4to. vol. 116. Paris, 1891. 8vo.
- Les laboratoires de mécanique et les écoles techniques supérieures. *Tract.* 4to. vol. 120. [Paris, 1891.] 4to.
- La machine à vapeur. Liège, 1889. 8vo.
- Manuel de mécanique appliquée. Première partie. Cinématique. Paris, 1866. 8vo.
- Méthode nouvelle pour représenter l'échange de chaleur entre le métal et la vapeur. *Tract.* 8vo. vol. 457. Mulhouse, 1888. 8vo.
- Note sur divers moyens d'économiser la vapeur dans les machines à un cylindre. Paris, 1890. 8vo.
- Note sur la théorie des condenseurs. *Tract.* 8vo. vol. 484. Liège, 1889. 8vo.
- Note sur l'effet utile des machines. *Tract.* 8vo. vol. 219. Liège, [1872 ?] 8vo.
- Programme des cours de mécanique appliquée et de physique industrielle professés à l'École des mines de Liège. Mons, 1876. 8vo.
- Le régulateur de Buss. *Tract.* 8vo. vol. 219. Liège, 1872. 8vo.
- Régulateur de Mohn. *Tract.* 4to. vol. 115. Liège, 1890. 4to.
- Réponse à la note sur l'effet utile des machines par G. Schmidt. *Tract.* 8vo. vol. 219. Liège, 1872. 8vo.
- Le révélateur Donkin et l'action des parois des cylindres à vapeur. *Tract.* 8vo. vol. 492. Mulhouse, 1890. 8vo.
- Sur la forme du tambour régulateur des machines d'extraction. *Tract.* 8vo. vol. 219. Liège, 1872. 8vo.
- Sur le frottement dans les machines à vapeur. *Tract.* 8vo. vol. 487. [1890 ?] 8vo.
- Sur une notice biographique relative à G. A. Hirn, récemment insérée dans le "Bulletin de l'Académie Royale de Belgique." *Tract.* 8vo. vol. 497. Bruxelles, 1890. 8vo.
- Théorie nouvelle des régulateurs. 1877. See BEER, C., and DWELSHAUVERS-DERY, V. A. E.
- DWELSHAUVERS-DERY, V. A. E., and WEILER, J. Referendum des ingénieurs : enquête sur l'enseignement de la mécanique. Liège, 1893. 8vo.
- DWYER, C. P. The Immigrant Builder ; or, practical hints to handy men. 10th edition. New York, 1872. 8vo.
- DWYER, J. The principles and practice of Hydraulic Engineering, etc. Dublin, 1847. 8vo.
- — 2nd edition. *Tract.* 8vo. vol. 118. Dublin, 1852. 8vo.

- DYCKERHOFF, R. Über Zement- und Trass-Mörtel. *Tract.* 8vo. vol. 330. Berlin, 1881. 8vo.
- DYCKERHOFF and SON. Ueber die sogenannte "Homogenisirung" von Cement und Cement mit Kalk. *Tract.* 4to. vol. 96. Berlin, 1885. 8vo.
- DYER, H. The Education of Civil and Mechanical Engineers. *Tract.* 8vo. vol. 333. Lond. 1880. 8vo.
- The Efficiency of Steamships from the owners' point of view. *Tract.* 8vo. vol. 454. Glasgow, 1888. 8vo.
- Memoir of Henry Muirhead, M.D., LL.D. *Tract.* 8vo. vol. 509. Glasgow, 1890. 8vo.
- A Modern University, with special reference to the requirements of Science, etc. *Tract.* 8vo. vol. 488. Perth, 1889. 8vo.
- Notes on some recent Steam Engine Trials. *Tract.* 8vo. vol. 487. Glasgow, 1889. 8vo.
- On a University Faculty of Engineering. *Tract.* 8vo. vol. 488. Glasgow, 1890. 8vo.
- On Energy and Entropy, with their applications to the theories of air and steam. *Tract.* 8vo. vol. 383. Glasgow, 1885. 8vo.
- On the Education of Engineers. *Tract.* 8vo. vol. 448. Glasgow, 1887. 8vo.
- On the present state of the Theory of the Steam-engine, and some of its bearings on current marine engineering practice. *Tract.* 8vo. vol. 422. Glasgow, 1886. 8vo.
- The Science Curriculum in the Universities. *Tract.* 8vo. vol. 497. 1890. 8vo.
- The Steam Engine since the days of Watt: a paper, etc. *Tract.* 8vo. vol. 487. Greenock, 1889. 8vo.
- Technical Education in Glasgow and the West of Scotland, etc. *Tract.* 8vo. vol. 522. [Glasgow, 1893.] 8vo.
- The Technical Schools (Scotland) Act, 1887, and some of its relations to elementary and higher education, etc. *Tract.* 8vo. vol. 454. Glasgow, 1887. 8vo.
- DYER, J. A plan for effectually ridding the Metropolis of the Sewage by sending it from eight to ten miles further towards the sea; [and] for promoting improvements in the navigation of the Thames, etc. *Tract.* 8vo. vol. 105. Lond. 1857. 8vo.
- DYMOND, C. W. Sanitary Memoranda. *Tract.* 8vo. vol. 358. Lond. 1874. 8vo.
- DYMOND, J., and OTHERS. Cultivation of Cane for sale. Papers read at the regular monthly meeting of the Louisiana Sugar Planters' Association, August 1887. *Tract.* 8vo. vol. 449. New Orleans, 1887. 8vo.
- DYNLLAEN. See PORTHDYNLLAEN.

E.

EADS, J. B. Address before the House Select Committee on Inter-Oceanic Canals, March 9, 1880, in reply to Count de Lesseps. *Tract. 8vo. vol. 323.* [1880.] 8vo.

— Illinois and St. Louis Bridge Company. Reports of the Chief Engineer, 1868 and 1870. *Tract. 8vo. vols. 197 and 224.*
St. Louis, 1868-70. 8vo.

(The other reports have been published in *Engineering* from time to time.)

— Improvement of Galveston Harbour. *Tract. 8vo. vol. 359.*
Washington, 1884. 8vo.

— Inaugural address to the Academy of Science, St. Louis. *Tract. 8vo. vol. 229.*
St. Louis, 1872. 8vo.

— The Isthmian Ship Railway. *Tract. 8vo. vol. 320.*
New York, 1881. 8vo.

(From the *North American Review*.)

— Letters from leading engineers and naval architects [to J. B. Eads, relative to his scheme for] . . . constructing and operating a Ship Railway [across the Isthmus of Tehuantepec. With a letter on Ship Railways and Canals by Sir E. J. Reed.] *Tract. 8vo. vol. 345.*
St. Louis, 1882. 8vo.

— Mississippi Jetties. Review of the Report of the Board of U.S. Engineers. *Tract. 8vo. vol. 309.* *Washington, 1879. 8vo.*

— Proposed Ship Railway across the Isthmus of Tehuantepec. (Discussion.) *Tract. 8vo. vol. 417.* [Pittsburgh?] 1886. 8vo.

— Report in relation to proposed improvement to promote Rapid Drainage, and to improve the Navigation of the Sacramento River. *Tract. 8vo. vol. 456.*
Sacramento, 1880. 8vo.

— Report of General Humphreys [on the Physics and Hydraulics of the Mississippi] reviewed. *Tract. 8vo. vol. 239.*
Washington, 1874. 8vo.

— Report on the Mississippi Jetties. *Tract. 8vo. vol. 261.*
New York, 1876. 8vo.

— Report on Toronto Harbour, Ontario. *Ottawa, 1882. 8vo.*

— Memoir of J. B. Eads, etc. *Tract. 8vo. vol. 445.*
 [New York,] 1887. 8vo.

(From *Trans. Am. Soc. C.E.*)

EAGLE HAWK NECK, *Tasmania*. Canal [through] Eagle Hawk Neck: report by C. N. Bell. [Hobart,] 1890. folio.

EAGLES, T. H. Constructive Geometry of Plane Curves, etc.
Lond. 1885. 8vo.

EARDLEY-WILMOT, F., *Col.* Experiments connected with the comparative strength of Iron used in the manufacture of Mortars; also as relates to their enduring properties when fired with service charges, etc. *Tract. 8vo. vol. 128.* *Woolwich, 1857. 8vo.*

- EARL, G. W. A correspondence relating to the discovery of Gold in Australia. *Tract. 8vo. vol. 116.* *London. 1853. 8vo.*
- EARNshaw, S. The doctrine of Germs; or, the integration of certain Partial Differential Equations which occur in Mathematical Physics. *Cambridge, 1881. 8vo.*
- Dynamics, or a treatise on Motion; to which is added a short treatise on Attractions. 3rd edition. *Cambridge, 1844. 8vo.*
- A treatise on Statics, containing the theory of the Equilibrium of Forces. 3rd edition. *Cambridge, 1845. 8vo.*
- EASSIE, P. B. Wood and its uses: a handbook for the use of Contractors, Builders, *etc.* *Gloucester, 1874. 8vo.*
- EASSIE, W. Healthy and unhealthy Houses in town and country: with an appendix on the Water-supply and disposal of Sewage of country houses, by Rogers Field. *London. 1884. 8vo.*
- Healthy Houses: a handbook, *etc.* 2nd edition. *London. 1872. 8vo.*
- On the Waters derived from the Bagshot Beds, considered as Drinking supplies. *Tract. 8vo. vol. 447.* *London. 1886. 8vo.*
- Sanitary Arrangements for Dwellings. *London. 1874. 8vo.*
- EAST, —. Questions on . . . Mr. Haywood's scheme, *etc.* 1880. *See RICHARDSON, R., and EAST, —.*
- EAST AND WEST INDIA DOCK COMPANY. Act for the further Improvement of the Port of London by making Docks . . . at Blackwall for the accommodation of the East Indian Shipping. *London. 1803. folio.*
- Acts for altering and amending [the East India Dock Act, 1803.] *London. 1806–14. folio.*
- East and West India Docks Extension Bill. Minutes of Evidence; House of Lords and House of Commons. 2 vols. *London. 1882. folio.*
- Opening of the Tilbury Deep Water Docks, April 17, 1886. *Tract. 8vo. vol. 418.* *London. 1886. 8vo.*
- EAST AND WEST YORKSHIRE RAILWAYS. Minutes of evidence, proceedings, and speeches on the East and West Yorkshire Union Railways Bill. *London. 1883. folio.*
- EAST ANGLIA. Holiday notes in East Anglia. *Tract. 8vo. vol. 420.* *Stratford, 1886. 8vo.*
- EAST INDIA AND CHINA ASSOCIATION. Report presented to the General Meeting, January 1, 1839. *Tract. 8vo. vol. 382.* *London. 1839. 8vo.*
- EAST INDIA ASSOCIATION, *London.* Journal. (Vol. 12 wanting.) *London. 1867, etc. 8vo.*
- EAST INDIA COMPANY. Contract No. 2 between the East India Company and the East Indian Railway Company for the extension of the experimental line of Railway to Delhi, 1854. *Tract. folio. vol. 42.* *1854. folio.*

- EAST INDIA COMPANY**—*continued*. A modest Defence of the East India Company's management of Steam-communication with India. By Philojohannes. *Tract. 8vo. vol. 163.*
London, 1839. 8vo.
- Reports and Proceedings in regard to the culture and manufacture of Cotton-Wool, Raw Silk and Indigo in India.
London, 1836. 8vo.
- EAST INDIAN RAILWAY.** *See INDIA.*—[*Railways.*]
- EAST LONDON, South Africa.** Papers relating to the East London, Port Elizabeth and Kourie Harbour Works.
[Cape Town,] 1868. folio.
- Report on the Harbour Works. *Cape Town, 1868. folio.*
- EAST LONDON RAILWAY.** Report by the Board of Trade . . . on the classification of merchandise traffic and schedule of maximum rates, *etc.*
London, 1891. folio.
- EAST LONDON WATERWORKS.** *See LONDON.*—[*Water Supply.*]
- EAST OF SCOTLAND ENGINEERING ASSOCIATION.** Proceedings. Vol. I., *etc.*
Edinburgh, 1893, etc. 8vo.
- EAST USK RAILWAY.** Minutes of Evidence, *etc.*
London, 1885. folio.
- EASTBOURNE.** Official Catalogue of the Exhibition of Sanitary Appliances held at Eastbourne.
Eastbourne, 1881. 8vo.
- EASTERN AND MIDLANDS RAILWAY.** Bridges and Culverts, Eastern and Midlands Railway. Cromer extension. W. Marriott, engineer.
(Reprinted from Engineering.) London, 1887. 4to.
- EASTERN COUNTIES COAL BORING AND DEVELOPMENT SYNDICATE.** List of Provisional Committee; proposed Prospectus; Geological Reports by T. V. Holmes, J. E. Taylor and W. Whitaker. *Tract. 8vo. vol. 533.*
Ipswich, 1893. 8vo.
- EASTERN COUNTIES RAILWAY.** *See GREAT EASTERN RAILWAY.*
- EASTERN STEAM NAVIGATION COMPANY.** Report of directors. *Tract. 8vo. vol. 111.*
[London,] 1853. 8vo.
- EASTLAKE, A. W.** Observations on Petroleum in Eastern Europe, and the method of drilling for it, *etc.*
London, 1892. 8vo.
- EASTLAKE, Sir C. L.** A History of the Gothic Revival: an attempt to show how the taste for mediæval architecture which lingered in England during the two last centuries has since been encouraged and developed.
London, 1872. 4to.
- EASTON, A.** A practical treatise on Street or Horse-power Railways, *etc.*
Philadelphia, 1859. 8vo.
- EASTON, E.** Brighton Corporation Waterworks: a paper, *etc.*
Tract. 8vo. vol. 407. London, 1881. 8vo.
- Rivers Conservation. Address and papers read before the British Association, *etc.* *Tract. 8vo. vol. 309. London, 1878. 8vo.*

- EASTWOOD.** Report on an Explosion of Gunpowder and Blasting Cartridges at J. Hall and Son's Cartridge Factory: by Major A. Ford. *Lond.* 1881. folio.
- EATON, J.** Public Libraries in the United States of America, etc. 2 pt. *Washington,* 1876. 8vo.
- EATON, S. J. M.** Petroleum: a history of the oil region of Venango County, Pennsylvania. *Philadelphia,* 1866. 8vo.
- EAU BRINK.** A Bill to amend and enlarge the powers of the several Acts now in force, relating to the drainage through the New River or Cut from Eau Brink to King's Lynn. [1825.] folio.
- EAYRS, J. T.** Incorporated Association of Municipal and County Engineers. President's Address delivered . . . at West Bromwich, July 1893. *Tract.* 8vo. vol. 522. *Lond.* 1893. 8vo.
- EBELMEN, J. J.** Recueil des travaux scientifiques de M. Ebelmen, revu et corrigé par M. Salvétat. Précédé d'une notice sur M. Ebelmen, par M. E. Chevreul. 2 vols. *Paris,* 1855. 8vo.
- Notice sur les travaux scientifiques de M. Ebelmen. *Tract.* 8vo. vol. 421. *Paris,* [1850.] 8vo.
- EBENHOF, A. W. VON.** See WEBER VON EBENHOF, A.
- EBERT, E.** Ueber Eisenbrücken. *Tract.* 8vo. vol. 435. *München,* 1886. 8vo.
- EBRO, River.** Aforos practicados en las cuencas de los rios Ebro, Duero, Guadiana, Guadalquivir y Tajo, durante el año 1880. [Obras publicas. Commission central hidrológica.] *Tract.* 8vo. vol. 342. *Madrid,* 1881. 8vo.
- Itinerarios del Rio Ebro y de todos sus afluentes. [Direccion general de obras publicas. Division hidrológica de Zaragoza.] *Madrid,* 1882. folio.
- ECHEGARAY, J.** Introduccion á la geometria superior. *Madrid,* 1867. 8vo.
- ECHUCA BRIDGE, Victoria.** Reports of the Royal Commission. *Melbourne,* 1878. folio.
- ECK, C. L. G.** Traité de construction en poteries et fer. 2 vols. *Paris,* 1836-41. folio.
- ECKERSLEY, P.** Observations on two letters to G. C. Glyn, Esq., M.P., by J. Whitehead, and M. Huish, on Railway Management. *Tract.* 8vo. vol. 82. *Manchester,* 1848. 8vo.
- ECKERSLEY, W.** Port of Buenos Aires. Report upon Messrs. Bolland and Whittle's Dock project, etc. *Tract.* 8vo. vol. 265. *Lond.* 1875. 8vo.
- ECKERT, K.** Referat über das Gordon'sche Canalisations-Project. *Tract.* 4to. vol. 83. *München,* 1879. 4to.
- ECKHARDT, A. G., and F. F., and DOUWES, B.** Memorie ter volkomene aanwijzing der belangrijke voordelen voor den lande, door een algemeen gebruik van watermolens met hellende schepraden, etc. [*s Gravenhage* ?] 1808. folio.

- ECKHARDT, F. F. Beschouwende vergelijking tusschen de watermolens, met hellende en met staande schepraders, *etc.*
's Gravenhage, 1816. 8vo.
- ECKHOLD, C. A. C. Description of Eckhold's Omnimeter. *Tract.*
8vo. vol. 181. [*Paris*, 1868.] 8vo.
- ECKMUHL, A. L. DAVOUT D', *Marquise de Blocqueville*. See
BLOCQUEVILLE, *Marquise de*.
- ECKSTEIN, G. F. A practical treatise on Chimneys; with a few
remarks on stoves, *etc.* *Lond.* 1852. 8vo.
- ÉCOLE CENTRALE D'ARCHITECTURE. See PARIS.
- ÉCOLE CENTRALE DES ARTS ET MANUFACTURES, *etc.*
See PARIS.
- ÉCOLE DES PONTS ET CHAUSSEES. See PARIS.
- ÉCOLE POLYTECHNIQUE SUISSE. Programme. 1888-89, *etc.*
Berne, 1888, *etc.* 8vo.
- ÉCOLE PROVINCIALE D'INDUSTRIE ET DES MINES DU
HAINAUT, afterwards ÉCOLE SPÉCIALE D'INDUSTRIE ET DES
MINES DU HAINAUT.
— Programme des cours. *Mons, Frameries*, 1863, 87. 8vo.
- ÉCOLE SPÉCIALE D'ARCHITECTURE. See PARIS.
- EDDY, C. W. The Defence of our Shores and of London, *etc.* *Tract.*
8vo. vol. 206. *Lond.* 1871. 8vo.
- EDDY, E. M. G. See NEW SOUTH WALES. [*Railways*.] Report of
the Royal Commission on the charges made against E. M. G.
Eddy. 1892.
- EDDY, H. T. Researches in Graphical Statics, *etc.*
New York, 1878. 8vo.
- EDDYSTONE LIGHTHOUSE. Copy of report from the Corporation
of Trinity House to the Board of Trade on the practicability of
removing the Eddystone Rocks instead of rebuilding the light-
house thereon. *Lond.* 1878. folio.
- EDE, G. Guns and Gun Material. *Lond.* 1889. 8vo.
— The Management of Steel. 5th edition. *Lond.* 1873. 8vo.
- EDE, W. M. National Insurance necessary and possible: two
lectures. *Tract.* 8vo. vol. 513. *Lond.* 1889. 8vo.
- EDEN, Sir F. M., *Bart.* Porto-bello: or, a plan for the improvement
of the Port and City of London. *Tract.* 8vo. vol. 21.
Lond. 1798. 8vo.
- EDEN VALLEY RAILWAY. Station Plans, by the resident
Engineer. [] folio.
- EDENBURN. Report on an Explosion at Edenburn, Nov. 28, 1884.
Lond. 1885. folio.
- EDER, J. M. The Chemical effect of the Spectrum. *Tract.* 8vo.
vol. 381. *Lond.* 1883. 8vo.

EDGE, F. J. Tables for setting out Curves. 1885. *See* CUTLER, H. A., and EDGE, F. J.

EDGE, F. M. The destruction of the American Carrying Trade: a letter to Earl Russell, K.G. *Tract. 8vo. vol. 158.*

Lond. 1868. 8vo.

EDGEWORTH, R. L. A letter to the Dublin Society, relative to experiments on Wheel Carriages. *Tract. 8vo. vol. 15.*

Dublin, 1816. 8vo.

— An Essay on the Construction of Roads and Carriages.

Lond. 1813. 8vo.

— — 2nd edition.

Lond. 1817. 8vo.

EDGREN, A. H. A compendious German and English Dictionary. 1893. *See* WHITNEY, W. G., and EDGREN, A. H.

EDINBURGH. Proceedings, etc., at laying the foundation stones of the Regent's Bridge and new Gaol, Edinburgh. *Tract. 4to. vol. 70.*

1815. 4to.

— [Observatory.] Astronomical Observations, 1834, (1835, etc.)

Edinburgh, 1838, etc. 4to.

— [Roads.] Edinburgh and Morpeth Road: copy of a Report and Estimate.

Lond. 1822. folio.

— [Royal Society of Edinburgh.] *See* ROYAL SOCIETY OF EDINBURGH.

— [Water Supply.] An Act for more effectually supplying the City of Edinburgh with Water.

Lond. 1819. folio.

— An Act for better supplying with Water the City of Edinburgh and places adjacent.

Lond. 1847. folio.

— Report of the Surveying Officers, and Minutes of Evidence on the Edinburgh Waterworks Bill.

Lond. 1847. folio.

— An economical plan for an additional Supply of Water for the City of Edinburgh. *Tract. 4to. vol. 6. Edinburgh, 1817. 4to.*

— Edinburgh and District Water: report by Joint Committee, etc. *Tract. 8vo. vol. 306.*

Edinburgh, 1869. 8vo.

— Interim Report . . . of the Edinburgh and District Water Trustees . . . as to the best means of obtaining an additional supply of water for Edinburgh, Leith, and Portobello, etc. *Tract. 8vo. vol. 306.*

Edinburgh, 1870. 8vo.

— Statement (on Water Supply) by the Corporations of Edinburgh, Leith, and Portobello. *Tract. 8vo. vol. 306.*

[Edinburgh,] 1869. 8vo.

— Supplementary Statement to the Proprietors of the Edinburgh Water Company. *Tract. 8vo. vol. 306.*

[Edinburgh, 1869?] 8vo

— The Supply of Water to Edinburgh. *Tract. 8vo. vol. 110.*

[Edinburgh, 1857.] 8vo.

(From the *Scotman*.)

EDINBURGH.—[*Water-Supply.*]—*continued.* The Water Supply: a letter to the *Scotsman*. By C. E. Tract. 8vo. vol.

Edinburgh, 1868. 8vo.

—[*St. Andrew's University.*] See ST. ANDREW'S UNIVERSITY.

EDINBURGH AND GLASGOW RAILWAY. Report from the Select Committee on the Edinburgh and Glasgow Railway Bill.

Lond. 1837. folio.

EDINBURGH AND GLASGOW UNION CANAL. Act for making . . . a Canal from the Lothian Road to join the Forth and Clyde Navigation near Falkirk.

Lond. 1817. folio.

— Act for amending [the Act of 1817]. *Lond.* 1819. folio.

— Correspondence between the committee of subscribers to the proposed Union Canal between Edinburgh and Glasgow and the Right Hon. the Lord Provost and magistrates of Edinburgh, relative to the undertaking. Tract. 8vo. vol. 7.

Edinburgh, 1814. 8vo.

— Observations by the Committee, submitted to the Lord Provost and City Council of Edinburgh. Tract. 4to. vol. 7.

Edinburgh, 1814. 4to.

— Observations on the objections made by the inhabitants of Leith to this undertaking. With an Appendix containing the reports of Messrs. Telford and Baird. Tract. 8vo. vol. 7.

Edinburgh, 1817. 8vo.

— Report by the aggregate Committee . . . to inquire into the affairs of the company; with the reasons of dissent from the report, by G. M'Cullum, P. Tennent, and A. Munro, and observations on the answers for Captain Cheyne. Tract. 8vo. vol. 7.

[1826.] 8vo.

— To the subscribers to the intended Edinburgh and Glasgow Union Canal, and to the inhabitants of the City of Edinburgh. By a Citizen. Tract. 8vo. vol. 7.

Edinburgh, 1814. 8vo.

EDINBURGH AND LEITH ENGINEERS' SOCIETY. Proceedings. 5 vols.

Edinburgh, 1875–80. 8vo.

(This Society, after publishing 5 volumes of Proceedings, joined the Royal Scottish Society of Arts, forming an Engineering Section thereof, but not issuing separate Transactions.)

EDINBURGH ENCYCLOPÆDIA. The Edinburgh Encyclopedia, edited by Sir D. Brewster. 18 vols. in 34, and supplementary part.

Edinburgh, 1830. 4to.

EDINBURGH, GLASGOW, AND LEITH RAILWAY. Reports by Messrs. Grainger and Miller of Edinburgh, and Mr. George Stephenson of Liverpool. Tract. 4to. vol. 93.

[*Edinburgh*,] 1831. 4to.

EDINBURGH UNIVERSITY. Calendar, 1886–87, (1887–88, etc.)

Edinburgh, 1886, etc. 8vo.

— Programme of Classes, Curriculum, and Regulations for Graduation in Science, 1886–87.

Edinburgh, 1886. 8vo.

— Syllabus of Lectures in the Department of Engineering.

Edinburgh, 1886. 8vo.

- EDINGTON, R. A treatise on the Coal Trade . . . With an historical account of coal-mining, *etc.* 2nd edition.
Lond. 1814. 8vo.
- EDIS, R. W. Cantor Lectures on the Building of Town Houses, *etc.*
Lond. 1884. 8vo.
- EDISON, T. A. On a Magnetic Bridge or Balance for measuring Magnetic Conductivity; and on the Pyromagnetic Dynamo, a machine for producing electricity directly from Fuel. *Tract.* 8vo. vol. 450.
Salem, 1887. 8vo.
(From the Proceedings of the American Association.)
- Edison and his Inventions : edited by J. B. McClure.
Chicago, 1889. 8vo.
- EDMESTON, J. An examination of existing facts relating to Zinc Works on the Continent, with a view to ascertain causes of failure in England. *Tract.* 4to. vol. 63. *Lond.* [1860 ?] 4to.
- EDMONDSON, J. Description and instructions for the use of Edmondson's Circular Calculating Machine. *Tract.* 8vo. vol. 397.
Halifax, 1885. 8vo.
- EDMUNDS, L. The Patents, Designs, and Trade Marks Acts, 1883 to 1888, consolidated with an index. *Lond.* 1889. folio.
- EDSALL, C. S. Copper Ore Tables, showing the prices of Ores of different produces, *etc.* *Truro*, 1854. 8vo.
- EDWARD ECCLES, S.S. Verslag over de lichting van het in Januari 1886 op de Theems gezonken stoomschip "Edward Eccles," . . . benevens eenige beschouwingen over de lichting van gezonken schepen in de Nederlandsche rivieren en zeemonden, en over de inrichting van het daartoe benoodigde materieel, *etc.* [With MS. translation.] 's Gravenhage, 1886. 4to.
- EDWARDS, A., M. Éléments de zoologie. 2^e édition.
Paris, 1843. 8vo.
- EDWARDS, D., and Co. The Gold Fields of South Africa.
Cape Town, 1890. 8vo.
- EDWARDS, E. Modern American Locomotive Engines, *etc.*
Philadelphia, 1883. 8vo.
- Modern American Marine Engines, Boilers and Screw Propellers.
Philadelphia, 1881. 4to.
- The practical Steam Engineer's Guide. *Lond.* 1882. 8vo.
- EDWARDS, E. P. The Eddystone Lighthouses (New and Old).
Lond. 1882. 8vo.
- Our Seamarks. *Lond.* 1884. 8vo.
- EDWARDS, F., jun. On the Ventilation of Dwelling-Houses and the utilisation of waste from open fire-places. *Lond.* 1868. 8vo.
- EDWARDS, F. G. Concrete and Iron Beams, designed to supersede Brick Arches, Wood Beams, and Iron Girders. *Tract.* 4to. vol. 119.
Lond. 1894. 4to.

- EDWARDS, F. G.—*continued*. Improvements in the combination of Iron and Concrete or similar materials for Building Purposes. Provisional Specification. *Tract. 4to. vol. 119. Lond. 1891. 4to.*
- EDWARDS, G. Report to the commissioners of the Haven of Great Yarmouth respecting the proposed Lock upon the River Wensum, at Norwich. *Tract. 8vo. vol. 71. Yarmouth, 1838. 8vo.*
- The River Waveney: did it ever reach the Sea *vid* Lowestoft? *Tract. 8vo. vol. 309. Lowestoft, 1879. 8vo.*
- Système de chemin de fer hydro-pneumatique pour le passage des hautes montagnes. Mémoire et dessins. *Tract. 4to. vol. 55. Turin, 1865. 4to.*
- The application of Gunpowder as an instrument of Engineering Operations, exemplified by its use in blasting marl rocks in the River Severn. *Tract. 8vo. vol. 498. Lond. 1845. 8vo.*
(From Min. Proc. Inst. C.E.)
- EDWARDS, L. Report for amending the outfall of the Nene, securing the Middle and North Levels of the Fens, and other countries adjoining to them from inundations by breaches of the north and south bank of Moreton's Cawe, and improving the navigation of the port of Wisbeach, and for better draining the lands above mentioned. *Tract. 4to. vol. 54. 1771. 4to.*
- EDWARDS, M. A guide to Modelling in Clay and Wax, *etc.* *Tract. 8vo. vol. 310. Lond. 1879. 8vo.*
- EDWARDS, S. Extracts taken from Harod's History of Stamford, relating to the navigation of the river Welland. . . . With some observations . . . by Mr. S. Edwards, sen. *Tract. 4to. vol. 58. Lond. [1810.] 8vo.*
- EDYE, J. Calculations relating to equipment, displacement, &c., of Ships and Vessels of War. (Addenda.) *Lond. 1832, 59. 8vo.*
- EGELING, L. J. The senior government medical inspector of Holland on the Liernur System in Holland. *Tract. 8vo. vol. 275. The Hague, 1874. 8vo.*
- EGEN, P. R. C. Untersuchungen über den Effekt einiger in Rheinland-Westphalen bestehenden Wasserwerke.
(Imperfect, wanting the plates.) *Berlin, 1831. 4to.*
- EGER, G. Technological Dictionary in the English and German languages. 2 pt. *Brunswick, 1882, 84. 8vo.*
- EGERTON, F. H. Description du plan incliné souterrain, exécuté entre le bief supérieur et le bief inférieur de son canal souterrain, dans ses mines de charbon de terre de Walkden Moor, dans le Lancashire. *Tract. 8vo. vol. 15. Paris, 1812. 8vo.*
- Première et seconde partie d'une lettre aux parisiens, et à la nation Française, sur la navigation intérieure, contenant une défense du caractère public du duc de Bridgewater, &c., &c.: et renfermant aussi une notice et des anecdotes sur M. J. Brindley. [French and English.] *Tract. 8vo. vol. 9. Paris, 1818–20. 8vo.*

- EGERTON, Sir P. DE M. G. A commentary of the services and charges of William, Lord Grey of Wilton; with a memoir of the author and illustrative documents. Edited by Sir P. de M. Grey Egerton. (Camden Society.) Lond. 1847. 4to.
- EGLESTON, T. Ancient methods of dividing and recording Time in Japan. *Tract.* 8vo. vol. 518. New York, 1892. 8vo.
- The Basic Bessemer Process. *Tract.* 8vo. vol. 413. [New York,] 1885. 8vo.
- Basic Open-hearth Steel Process. *Tract.* 8vo. vol. 415. [New York,] 1885. 8vo.
- Basic Refractory Materials. *Tract.* 8vo. vol. 409. [New York,] 1885. 8vo.
- Bessemerizing Copper Mattes. *Tract.* 8vo. vol. 415. [New York,] 1885. 8vo.
- Biographical notice of L. Gruner. *Tract.* 8vo. vol. 403. [New York,] 1884. 8vo.
- Catalogue of Minerals and Synonyms. 1887. See UNITED STATES OF AMERICA.—*National Museum.* Bulletin No. 33.
- The cause and prevention of the Decay of Building Stone. *Tract.* 8vo. vol. 419. [New York,] 1886. 8vo.
- The Disintegration of the Egyptian Obelisk in the Central Park, New York. *Tract.* 8vo. vol. 419. [New York,] 1886. 8vo.
- Drift-Mining. *Tract.* 8vo. vol. 443. [New York,] 1887. 8vo.
- The Dunnachie Continuous Regenerative Gas Kiln for burning Fire-Brick Pottery, etc. *Tract.* 8vo. vol. 437. [New York,] 1886. 8vo.
- A Glossary of Furnace-terms in English, French, and German, etc. *Tract.* 8vo. vol. 455. [New York,] 1888. 8vo.
- Going into blast with Anthracite Furnaces. *Tract.* 8vo. vol. 409. [New York,] 1885. 8vo.
- Haswell and Whitworth's Steel Forgings. *Tract.* 8vo. vol. 391. [New York,] 1885. 8vo.
- Leaching Gold and Silver Ores in the West, etc. *Tract.* 8vo. vol. 466. [New York,] 1883. 8vo.
- Leaching Gold Ores containing Silver. *Tract.* 8vo. vol. 443. (Reprinted from "Engineering.") Lond. 1886. 8vo.
- Lectures on Mineralogy, etc. New York, 1872. 8vo.
- A Machine for testing the physical properties of Metals and Alloys. *Tract.* 8vo. vol. 466. New York, 1883. 8vo.
- Manufacture of Slag Bricks in Montana. *Tract.* 8vo. vol. 530. [New York, 1891.] 8vo.
- The Mendheim Continuous Gas-Furnace for burning Fire-Brick and Porcelain. *Tract.* 8vo. vol. 437. [New York,] 1886. 8vo.
- The Metallurgy of Silver, Gold, and Mercury in the United States. 2 vols. Lond. and New York, 1887, 90. 8vo.

- EGLESTON, T.—*continued*. Method of collecting Flue Dust. *Tract.*
8vo. vol. 384. [Boston?] 1883. 8vo.
- Parting Gold and Silver by means of Iron at Lautenthal. *Tract.*
8vo. vol. 384. Lond. 1885. 8vo.
- Parting Gold and Silver in California. *Tract.* 8vo. vol. 343.
[New York, 1882.] 8vo.
- (From Report of Director of the Mint, U.S.A.)
- Parting Gold and Silver in the United States Assay Office,
New York City. *Tract.* 8vo. vol. 409. [New York,] 1885. 8vo.
- The Parting Process used in the United States Mint at
Philadelphia. *Tract.* 8vo. vol. 421. [New York,] 1886. 8vo.
- The Patio and Cazo Processes for Amalgamating Silver Ores.
Tract. 8vo. vol. 425. New York, 1884. 8vo.
- The Point Shirley Copper Works. *Tract.* 8vo. vol. 421.
[New York,] 1886. 8vo.
- Presence of Tellurium in Copper, *etc.* *Tract.* 8vo. vol. 480.
[New York,] 1882. 8vo.
- Rolls for crushing Ore. *Tract.* 8vo. vol. 409.
Lond. 1885. 8vo.
- The Separation of Silver and Gold from black Copper at Oker.
Tract. 8vo. vol. 413. Washington, 1885. 8vo.
- Some researches on the Amalgamation of Gold and Silver, *etc.*
Tract. 8vo. vol. 466. [New York,] 1884. 8vo.
- Some Thoughts and suggestions on Technical Education: presi-
dential Address before the American Institute of Mining
Engineers, *etc.* *Tract.* 8vo. vol. 454. New York, 1888. 8vo.
- The Stedefeldt Furnace. *Tract.* 8vo. vol. 409.
Lond. 1885. 8vo.
- The Thies Process of Barrel Chlorination. *Tract.* 8vo. vol. 489.
[New York,] 1890. 8vo.
- Treating Gold and Silver at the United States Mint. *Tract.*
8vo. vol. 425. Lond. 1886. 8vo.
- The Treatment of Copper Slates at Mansfeldt. *Tract.* 8vo.
vol. 530. [New York, 1891.] 8vo.
- Treatment of Enargite. *Tract.* 8vo. vol. 480.
[New York,] 1882. 8vo.
- The Treatment of Fine Gold in the Sands of Snake River,
Idaho. *Tract.* 8vo. vol. 495. [New York,] 1890. 8vo.
- Treatment of Gold in the Arrastra. *Tract.* 8vo. vol. 443.
[New York,] 1887. 8vo.
- Treatment of roasted Pyrites by the Longmaid and Claudet
processes for the extraction of Gold and Silver. *Tract.* 8vo.
vol. 415. [New York,] 1885. 8vo.
- Working Placer Deposits in the United States. *Tract.* 8vo.
vol. 415. [New York,] 1886. 8vo.

EGYPT.—[*Irrigation.*] Irrigation in Lower Egypt. By J. G. Fife.
[Records of the Government of India (P.W.D.) No. 21.]
Calcutta, 1856. 8vo.

— Public Works Ministry. Report of the Administration of
the Irrigation Department for 1886, (1887, *etc.*) By Col. Sir C.
C. Scott-Moncrieff. [Reports for 1889–91, by Col. J. C. Ross :
continued after that date by W. E. Garstin.]
Cairo, 1887, *etc.* 4to.

— Report on Perennial Irrigation and Flood Protection . . . by
W. Willcocks : with a note by W. E. Garstin. *Cairo*, 1894. 4to.

— [Railways.] Railways in Egypt; communication with India.
Tract. 8vo. vol. 166. *London*, 1857. 8vo.

EHMANN, — von. Die Versorgung der wasserarmen Alb mit
fliessenden Trink- und Nutz-Wassern und das öffentliche Wasser-
Versorgungs-Wesen im Königreich Württemberg.
Stuttgart, [1881.] folio.

EHRENDORFER, A. Ueber Dampfkesselfeuerung mit Coke. *Tract.*
folio. vol. 39. *Wien*, 1885. folio.

EHRENDORFER, A., and MELHUSH, T. W. Calorische u.
dynamische Untersuchungen in der elektrischen Centralstation
der Imp. Cont. Gas-Association in Wien. *Tract.* 8vo. vol. 490.
Wien, 1889. 8vo.

EHRENKROOK, F. von. Die Fisch-Torpedos. *Tract.* 8vo. vol. 312.
Berlin, 1878. 8vo.

— Geschichte der Seeminen und Torpedos. *Tract.* 8vo. vol. 312.
Berlin, 1878. 8vo.

EHRENWERTH, F. von. Ein Vorschlag zur Reform der Bruder-
laden. *Tract.* 4to. vol. 93. [Wien,] 1885. 4to.

EHRENWERTH, J. von. Die Regenerirung der Hochofen-Gichtgase.
Leipzig, 1883. 8vo.

EHRMANN, F. L. Montgolfier'sche Luftkörper oder aerostatische
Machinen. *Strasburg*, 1784. 8vo.

EICHENHAUER, A. Die Seilscheibengerüste der Bergwerks-
Förderanlagen. (Atlas of Plates.) *Leipzig*, 1877. 8vo. and folio.

EICHHOFF, J. J. Topographisch-statistische Darstellung des Rheines,
mit vorzüglicher Rücksicht auf dessen Schifffahrt und Handlung.
Köln, 1814. 4to.

EIFFEL, G. Notice sur le pont du Douro, à Porto (Pont Maria
Pia). *Clichy*, 1874. 4to.

— Tour de 300 mètres. [Engravings.] [1889.] 4to.

EISENWERTH, A. S. von. Erfahrungsergebnisse über Luftverbrauch
und über Reibungswiderstände. *Tract.* folio. vol. 44.
Wien, 1877. folio.

EISENWERTH, A. S. von—*continued*. Die Wasserhebmascinen System Gebrüder Klein, A. Schmoll und E. Gaertner, und Formeln zur Berechnung des Volumeffectes und des Kraftbedarfes von Kolbenpumpen. *Tract. 8vo. vol. 469. Prag, 1883. 8vo.*

EISSLER, M. The Metallurgy of Argentiferous Lead, *etc.* *Lond. 1891. 8vo.*

— The Metallurgy of Gold, *etc.* *Lond. 1888. 8vo.*

— The Metallurgy of Silver, *etc.* *Lond. 1889. 8vo.*

— The Modern High Explosives, Nitro-Glycerine and Dynamite, *etc.* *New York, 1884. 8vo.*

EKIN, C. Potable Water. *Lond. 1880. 8vo.*

ELB, O. Curven-Tabellen. *Wilhelmshaven, 1879. 12mo.*

— Ueber Gebäudestatistik. *Tract. 8vo. vol. 344. Dresden, 1882. 8vo.*

ELBERFELD.—*Deutsch - Amerikanischer Bergwerkverein. Zweiter Generalbericht der Direktion, etc. 1827. 8vo.*

ELBE-STROMSCHAU-COMMISSION. Verhandlungen der betreffenden Uferstaaten über die Schiffbarkeit der Elbe und deren Verbesserung. *Hamburg, 1850. 4to.*

ELDER, W. A memoir of Henry C. Carey. *Tract. 8vo. vol. 333. Philadelphia, 1880. 8vo.*

ELDERHORST, W. Manual of Qualitative Blowpipe Analysis and Determinative Mineralogy. [Revised] by H. B. Nason. *Philadelphia, 1881. 8vo.*

ELDRIDGE, J. The Engineer's practical Guide for fixing Hot Water Apparatus, *etc.* *Tract. 8vo. vol. 351. Lond. 1881. 8vo.*

— The Pump Fitter's Guide for calculating and fixing Pumps. *Tract. 8vo. vol. 351. Lond. 1878. 8vo.*

ELECTRICAL ENGINEERS, INSTITUTION OF. *See INSTITUTION OF ELECTRICAL ENGINEERS.*

ELECTRICAL POWER STORAGE COMPANY. The "E. P. S." Automatic System for the public supply of Electricity from Storage Batteries. *Tract. 8vo. vol. 457. Lond. 1888. 8vo.*

— The Public Supply of Electricity for Light, Heat, and Power on the Storage System, 1889. *Tract. 4to. vol. 112. Lond. 1889. 4to.*

— The Storage System of Electrical Supply, *etc.* *Tract. 8vo. vol. 457. Lond. 1888. 8vo.*

— — 2nd edition. *Lond. 1888. 8vo.*

ELECTRICAL STANDARDIZING, TESTING, AND TRAINING INSTITUTION. [Prospectus.] *Tract. 8vo. vol. 508. Lond. 1893. 8vo.*

— The Training of Electrical Engineers. *Tract. 8vo. vol. 522. Lond. 1893. 8vo.*

ELEMORE COLLIERY. Reports on the Explosion which occurred on the 2nd December, 1886: by H. Corser and T. Bell.

Lond. 1887. folio.

ELGAR, F. The scientific study of Naval Architecture. *Tract.* 8vo. vol. 389. *Glasgow*, 1884. 8vo.

— The use of Stability Calculations in regulating the loading of Steamers, etc. *Tract.* 4to. vol. 109. [*Lond.*] 1884. 4to.

— The Variation of Stability with Draught of Water in Ships. *Tract.* 8vo. vol. 464. *Lond.* 1884. 8vo.

(From the Proc. Royal Society.)

ÉLIE DE BEAUMONT, J. B. A. L. L. Explication de la carte géologique de France. 1841. See **DUFRENOY, A.**, and **ÉLIE DE BEAUMONT, J. B. A. L. L.**

— Leçons d'hydraulique. Torrents, rivières, fleuves, vallées. Cours professé au Collège de France. *Paris*, [1869.] 8vo.

ELIOT, C. W., and **STOREY, F. H.** On the Impurities of commercial Zinc, with special reference to the residue insoluble in dilute acids, to sulphur, and arsenic. *Tract.* 4to. vol. 48.

Cambridge, U.S., [1860.] 4to.

(From the Memoirs of the American Academy.)

ELIOT, J. Handbook of Cyclonic Storms. 1890. See **INDIA.**—[*Cyclones.*]

— Indian Meteorological Memoirs. (Vol. 3, etc.) See **INDIA.**—[*Meteorology.*]

— Indian Weather Review, 1891, etc. See **INDIA.**—[*Meteorology.*]

— Meteorological Observations, 1891, etc. See **INDIA.**—[*Meteorology.*]

— Report on Madras Cyclone, May. 1877. See **INDIA.**—**MADRAS.**

— Report on Meteorology, 1885, etc. See **INDIA.**—[*Meteorology.*]

— Report of the Vizagapatam and Backergunge Cyclones. 1877. See **INDIA.**—**VIZAGAPATAM.**

— Report on Meteorological Observations in the N.W. Provinces. 1875. See **INDIA.**—**NORTH-WEST PROVINCES.**

ELKINGTON and Co. On the application of Electro-Metallurgy to the arts. *Tract.* 8vo. vol. 57. *Lond.* 1844. 8vo.

ELLENA, V. La statistica di alcune industrie italiane. *Tract.* 8vo. vol. 454. *Roma*, 1880. 8vo.

ELLERMAN, C. F. Sanitary Reform and Agricultural improvement; or, how to promote health and abundance. *Tract.* 8vo. vol. 83. *Lond.* 1848. 8vo.

— 2nd edition. *Tract.* 8vo. vol. 83. *Lond.* 1848. 8vo.

ELLERY, R. L. J. A Lecture on the Sun's Distances and the Transits of Venus, etc. *Tract.* 8vo. vol. 464.

Ballaarat, 1882. 8vo.

— Notes on a Chronographic apparatus, with Huyghens' parabolic pendulum. *Tract.* 8vo. vol. 413. *Melbourne*, 1885. 8vo.

- ELLESMERE CANAL.** Act for making a . . . Canal from the River Severn at Shrewsbury to the River Mersey at Netherpool, *etc.* *Lond.* 1793. folio.
- Act to amend [the Act of 1793]. *Lond.* 1796. folio.
- Act to authorize the Proprietors . . . to extend the Canal from the Whitchurch Branch . . . to communicate with the Chester Canal in the Township of Stoke, *etc.* *Lond.* 1801. folio.
- Act for repealing so much of the Act [of 1793] as restrains the Proprietors . . . from taking Tonnage on Coals, Coak, Culm, Lime or Limestone upon a part of the Canal, *etc.* *Lond.* 1802. folio.
- Act to enable the Proprietors . . . to make a Railway from Ruabon Brook to the Ellesmere Canal at and near the Aqueduct at Pontcysyllte, *etc.* *Lond.* 1804. folio.
- Act to enable the Proprietors to extend the Whitchurch Line of the Canal . . . and for amending the several Acts for making the Canal. *Lond.* 1810. folio.
- Act for uniting the Ellesmere and Chester Canals. *Lond.* 1813. folio.
- Report to the general assembly of the proprietors . . . 1805 . . . To which is annexed the oration delivered at Pont-Cysyllte Aqueduct on its first opening. *Shrewsbury*, 1806. 4to.
- ELLET, C., jun.** Cost of Transportation on Railroads. *Tract.* 8vo. vol. 77. *Philadelphia*, 1844. 8vo.
- The Mississippi and Ohio rivers : containing plans for the protection of the delta from inundation ; and investigations of the practicability and cost of improving the navigation of the Ohio and other rivers by means of reservoirs, *etc.* *Philadelphia*, 1853. 8vo.
- The Mountain Top Track : a description of the railroad across the Blue Ridge at Rock Fish Gap, in the State of Virginia. *Tract.* 4to. vol. 42. *Philadelphia*, 1856. 4to.
- A popular notice of Suspension Bridges ; with a brief description of the wire bridge across the Schuylkill, at Fairmount. *Tract.* 8vo. vol. 72. *Philadelphia*, 1843. 8vo.
- Report on the improvement of the Kanawha, and incidentally, of the Ohio river, by means of Artificial Lakes. *Philadelphia*, 1858. 8vo.
- ELLICE-CLARK, E. B.** Asphalte, and its application to Street Paving. *Tract.* 8vo. vol. 475. *Lond.* 1879. 8vo.
- On the construction and maintenance of the Public Highways. *Tract.* 8vo. vol. 266. *Derby*, 1876. 8vo.
- A paper on the Supervision of Private Building by public authority. *Tract.* 8vo. vol. 361. *Liverpool*, 1883. 8vo.
- The present aspect of the Rural Road Question, *etc.* *Tract.* 8vo. vol. 419. *Hanley*, 1886. 8vo.
- Ventilation of Sewers, *etc.* *Tract.* 8vo. vol. 236. *Lond.* 1874. 8vo.

- ELLIOTT, J. A description of two methods, by which the Irregularities in the motion of a Clock, arising from the influence of heat and cold upon the rod of the pendulum, may be prevented ; to which are added a collection of papers relating to the same subject. *Tract. 8vo. vol. 41. Lond. 1753. 8vo.*
- Several essays towards discovering the Laws of Electricity : communicated to the Royal Society, etc. *Tract. 8vo. vol. 33. Lond. 1748. 8vo.*
- ELLIOT, G. H., *Maj.* Report of a tour of inspection of European Light House establishments made in 1873. *Washington, 1874. 8vo.*
- ELLIOT, W. G. Report on the Water Supply of certain Cities of the United States. [*U.S.A. 10th Census. Vol. 17. (Pt. 2.)*] *Washington, 1887. 4to.*
- ELLIOTT, H. W. A Monograph of the Seal Islands of Alaska. *Washington, 1882. 4to.*
- ELLIOTT, JAMES. Account of the Dymchurch Wall, etc. *Tract. 8vo. vol. 502. (From Min. Proc. Inst. C.E.) Lond. 1850. 8vo.*
- ELLIOTT, JOHN. Applied Mechanics. *Roorkee, 1871. 8vo.*
- ELLIOTT, R. S. Notes taken in Sixty Years. *St. Louis, 1883. 8vo.*
- ELLIOTT, W. J. Suggestions for the better control and management of the War Office manufacturing departments. *Tract. 8vo. vol. 436. Lond. 1887. 8vo.*
- ELLIS, C. E. A Treatise on the Law relating to Rates and Traffic on Railways and Canals, etc. 1889. See BUTTERWORTH, A. K., and ELLIS, C. E.
- ELLIS, F. W., *Lieut., R.N.* A brief historical report of Southwold Harbour, etc. *Tract. 8vo. vol. 75. Southwold, 1839. 8vo.*
- ELLIS, G. A. Work done by and Power required for Fire Streams, etc. *Springfield, 1878. 12mo.*
- ELLIS, G. E. Memoir of Sir Benjamin Thompson, Count Rumford ; with notices of his daughter. *Philadelphia, [1873 ?] 8vo.*
- ELLIS, H. S. Light Railways, etc. *Tract. 8vo. vol. 225. Exeter, 1872. 8vo.*
- ELLIS, J. W. Report on Grade Crossings in Worcester, etc. 1892. See ALLEN, C. A., LOCKE, A. W., and ELLIS, J. W.
- ELLIS, R. Report of the practical results of experiments on Canal Navigation, ordered by the Committees of management of the Forth and Clyde and Edinburgh and Glasgow Union Canals. *Tract. 4to. vol. 70. Edinburgh, 1835. 4to.*
- ELLIS, T. Metropolitan Board of Works. Letter of T. Ellis in reference to his proposal for the Concession of the Sewage on the South side of the Thames. *Tract. 8vo. vol. 478. Lond. 1866. 8vo.*

- ELLIS, T.—*continued*. The Metropolitan Sewage ; or, the conversion of Lord Torrington. *Tract. 8vo. vol. 275. Lond. 1863. 8vo.*
- The Sewage of the Metropolis, and how to utilise it. *Tract. 8vo. vol. 275. Lond. 1863. 8vo.*
- Mr. Ellis' Tender for the economic and profitable Utilisation of the Metropolitan Sewage. *Tract. 8vo. vol. 275. Lond. [1863.] 8vo.*
- ELLIS, T. G. Description of the Iron Bridge over the Connecticut River on the Hartford and New Haven Railroad. *Tract. 8vo. vol. 237. Hartford, Conn., 1866. 8vo.*
- ELMES, J. Memoirs of the Life and Works of Sir Christopher Wren ; with a brief view of the progress of architecture in England, from the beginning of the reign of Charles I. to the end of the 17th century, *etc.* *Lond. 1823. 4to.*
- A practical treatise on Architectural Jurisprudence, *etc.* *Dublin & Lond. 1827. 8vo.*
- A scientific, historical, and commercial Survey of the Harbour and Port of London. *Lond. 1838. folio.*
- A Topographical Dictionary of London and its environs. *Lond. 1831. 8vo.*
- ELPHINSTONE LAND AND PRESS COMPANY. Reports of the Directors. *Bombay, 1860–69. folio.*
- Report of the Liquidators. *Bombay, 1870. folio.*
- ELSTOBB, W. A book of references to the Map of Sutton and Mepall Levels, done from a survey taken in 1750, *etc.* *Tract. 8vo. vol. 369. Cambridge, [1750 ?] 8vo.*
- An historical account of the Great Level of the Fens, called Bedford Level, and other fens, marshes, and lowlands in this kingdom, and other places, *etc.* *Lynn, 1793. 8vo.*
- The pernicious consequences of replacing Denver-dam and sluices, *etc.*, considered in a letter to Mr. J. Leaford ; wherein his arguments contained in a pamphlet entitled, 'Observations, *etc.*,' are . . . examined. *Tract. 8vo. vol. 12. Cambridge, 1745. 8vo.*
- Sections of the river Ouse. On four sheets. *Tract. 4to. vol. 54. 1776. 4to.*
- ELTERWATER. Report of an Explosion of Gunpowder at a Gunpowder Factory at Elterwater, near Ambleside : by Major A. Ford. *Lond. 1878. folio.*
- ELTON, C. I. A treatise on Commons and Waste Lands ; with special reference to the law of approvement. *Lond. 1868. 8vo.*
- ELWES, R. G. Irrigation in India : the present state of the question. *Tract. 8vo. vol. 231. Allahabad, 1869. 8vo.*
- ELY, G. H. The Great Lakes of North America. [5th Int. Congr. *Int. Nav.*] *[Paris, 1892.] 8vo.*

- ELY VALLEY RAILWAY.** Report by the Board of Trade . . .
on the Classification of Merchandise Traffic and Schedule of Maximum Rates. *Lond.* 1891. folio.
- EMDEN, A.** The Law relating to Building Leases and Building Contracts. *Lond.* 1882. 8vo.
- 2nd edition. *Lond.* 1885. 8vo.
- The Metropolitan Management and Building Acts (Amendment) Act, 1882. *Lond.* 1882. 8vo.
- EMERSON, J.** Treatise relative to the Testing of Water-Wheels and Machinery with various other matters pertaining to Hydro-mechanics. *Springfield,* 1881. 8vo.
- EMERSON, W.** The Principles of Mechanics. 5th edition. *Lond.* 1800. 4to.
- Tracts: containing, I. Mechanics, or the doctrine of motion. II. The projection of the sphere. III. The laws of centripetal and centrifugal force. A new edition: to which is prefixed, some account of . . . the author, by the Rev. W. Bowe. *Lond.* 1793. 8vo.
- EMERY, A. H.** A new System of Weighing Machinery. *Tract.* 8vo. vol. 362. *Stamford,* 1884. 8vo.
- EMERY, C. E.** The Cost of Steam Power, etc. *Tract.* 8vo. vol. 529. [*New York,* 1893.] 8vo.
- Flexure and Transverse Resistance of Beams. *Tract.* 8vo. vol. 463. [*New York,*] 1879. 8vo.
- Report of the trial of the Steam Machinery of the U.S. revenue steamer "Gallatin." 1875. See LORING, C. H., and EMERY, C. E.
- Tubulous Boilers: discussion by C. E. Emery. *Tract.* 8vo. vol. 492. [*New York,* 1890.] 8vo.
- EMION, V.** Manuel pratique, ou traité de l'exploitation des chemins de fer, etc. *Paris,* 1864. 12mo.
- EMMERY, H. C.** Cartes statistiques de la distribution des eaux, et des égouts de la ville de Paris. Complétées jusqu'au 31 décembre 1852. *Paris,* 1853. 8vo.
- Statistique des égouts de la ville de Paris (année 1836). *Tract.* 8vo. vol. 69. *Paris,* 1837. 8vo.
- EMMONS, S. F.** Geology and Mining Industry of Leadville, Colorado, with atlas. [*U.S. Geol. Survey.* Monograph XII.] *Washington,* 1886. 4to.
- On Hypersthene-Andesite and on Triclinic Pyroxene in Augitic Rocks, by Whitman Cross: with a geological sketch of Buffalo Peaks, Colorado. [*U.S. Geol. Survey.* Bulletin no. 1.] *Washington,* 1883. 8vo.
- EMMONS, S. F., and BECKER, G. F.** Statistics and Technology of the Precious Metals. [*U.S.A. 10th Census.* Vol. 13.] *Washington,* 1885. 4to.

- EMU BAY, *Tasmania*. Report on Emu Bay Breakwater: by C. N. Bell. [Hobart,] 1890. folio.
- EMY, A. R. Cours élémentaire de fortification fait à l'École spéciale militaire. (Atlas of plates.) Paris, 1843. 8vo. and 4to.
- Du mouvement des ondes et des travaux hydrauliques maritimes. Paris, 1831. 4to.
- Traité de l'art de la charpenterie. 2 vols. (Atlas of plates.) Paris, 1837–41. 4to. and folio.
- — Deuxième édition revue, . . . suivie d'éléments de charpenterie métallique, et précédée d'une notice sur l'Exposition universelle de 1867 (section des bois): par L. A. Barré. 3 vols. (Atlas of plates.) Paris, 1869–73. 4to. and folio.
- ENCKE, J. F. On a new method of computing the Perturbations of Planets. Translated and illustrated with notes by G. B. Airy. Tract. 8vo. vol. 432. Lond. 1852. 8vo.
- On Encke's Comet. Encke's Dissertation contained in No. ccx. and ccxi. of the *Astronomische Nachrichten*: translated . . . by G. B. Airy. Tract. 8vo. vol. 187. Cambridge, 1832. 8vo.
- Über die bestimmung des Längen-unterschiedes zwischen den Sternwarten von Brüssel und Berlin abgeleitet auf telegraphischem Wege im Jahre 1857, nebst einem Nachtrage über die Bestimmung des Längen-unterschiedes zwischen den Sternwarten von Königsberg und Berlin. Berlin, 1859. 4to.
(Aus den Abhandlungen der K. Bayer. Akad. der Wissensch.)
- ENCYCLOPÆDIA AMERICANA. The Encyclopædia Americana: a supplemental dictionary of Arts, Sciences, and General Literature. 4 vols. New York, 1883–89. 4to.
- ENCYCLOPÆDIA BRITANNICA. The Encyclopædia Britannica; or, dictionary of Arts, Sciences, and General Literature. 6th edition. 24 vols. Edinburgh, 1822–24. 4to.
- — 8th edition. With Index. 22 vols. Edinburgh, 1853–60. 4to.
- — 9th edition. With Index. 25 vols. Edinburgh, 1875–89. 4to.
- ENCYCLOPÆDIA METROPOLITANA. Encyclopædia Metropolitana; or, Universal Dictionary of Knowledge. 27 vols. with 3 vols. of plates. Lond. 1849. 4to.
- ENCYCLOPÉDIE. See ANONYMOUS.
- ENDE, M. AM. Bridge for the Alagoas Railway in Brazil. Tract. 4to. vol. 117. Lond. 1891. 4to.
- The Forth Bridge. Tract. folio. vol. 27. Lond. 1880. folio.
- On the Question of Pins or Rivets in Bridges. Tract. 4to. vol. 117. Lond. 1891. 4to.
- ENDEGEEST, G. D'. Du dessèchement du lac de Harlem. (Atlas of plates.) Amsterdam, 1849–61. 8vo. and folio.

- ENDERBY, C. The Auckland Islands: a short account of their climate, soil, and productions, *etc.* *Tract.* 8vo. vol. 85.
Lond. 1849. 8vo.
- The Fallacy of our Monetary System, as deduced from Sir R. Peel's definition of a "pound." *Tract.* 8vo. vol. 85.
Lond. 1847. 8vo.
- Our Money Laws the cause of the National Distress. *Tract.* 8vo. vol. 85.
Lond. 1847. 8vo.
- Proceedings at a public dinner given to C. Enderby at the London Tavern, Bishopsgate Street, on the 18th of April, 1849. *Tract.* 8vo. vol. 85.
Lond. 1849. 8vo.
- Proposal for re-establishing the British Southern Whale Fishery, through the medium of a Private Company. 2nd edition. *Tract.* 8vo. vol. 70.
Lond. 1847. 8vo.
- ENDLICH, F. M. On some striking Products of Erosion in Colorado. *Tract.* 8vo. vol. 481. *Washington*, 1878. 8vo.
 (From the Bulletin of the U.S. Geological and Geographical Survey.)
- ENDRES, E. Manuel du conducteur des ponts et chaussées, rédigé d'après le nouveau programme officiel. 2^e édition. 3 vols. *Paris*, 1857. 8vo.
- ENGELMANN, W. Bibliotheca Mechanico-technologica. *Leipzig*, 1844. 8vo.
- ENGERTH, W. Die Lokomotive der Staats-Eisenbahn über den Semmering. (Atlas of plates.) *Tract.* vol. 383.
Wien, 1854. 8vo. and folio.
- ENGERTH, W. F. von. Das Schwimmthor zur Absperrung des Wiener-Donau Canales. *Vienna*, 1884. folio.
- ENGESSER, F. Theorie und Berechnung der Bogenfachwerkträger ohne Scheitелgelenk. *Tract.* 8vo. vol. 344. *Berlin*, 1880. 8vo.
- ENGINE AND BOILER INSURANCE COMPANY. Chief Engineer's Report, 1880, (1881, *etc.*) *Manchester*, 1880, *etc.* 8vo.
- ENGINEERING NEWS PUBLISHING COMPANY. Atlas of Railway Construction, 1887–88. *New York*, 1887–88. 4to.
- ENGINEERS AND SHIPBUILDERS' INSTITUTION IN SCOTLAND. Catalogue of Books in the Library. *Glasgow*, [1885.] 8vo.
- ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA. Index to the Library. *Pittsburg*, 1883. 8vo.
- Proceedings, 1887, *etc.* [*Pittsburg*, 1887, *etc.*] 8vo.
- Transactions. Vol. 1. *Pittsburg*, 1882. 8vo.
- The Water-Supply of Allegheny. *Tract.* 4to. vol. 104. *Pittsburg*, 1886. 4to.
- ENGLEFIELD, Sir H. C., Bart. Observations on the probable Consequences of the Demolition of London Bridge. *Lond.* 1821. 8vo.

- ENGLISH AND BRISTOL CHANNELS SHIP CANAL. Prospectus and Mr. Telford's preliminary Report, *etc.* *Tract.* 8vo. vol. 5. *Lond.* 1824. 8vo.
- ENGLISH CYCLOPEDIA. The English Cyclopaedia: a dictionary of universal information. 11 vols. (Atlas.) *Lond.* [1854–55.] 4to.
- ENGLISH, H. The Mining Almanack for 1849–51. *See* PERIODICAL PUBLICATIONS.
- ENGLISH, T., *Lieut., R.E.* Lectures on a new Steam-Engine. *Tract.* 8vo. vol. 243. *Chatham*, 1864. 8vo.
- Lectures on Modes of propelling Ships, and their defects; with suggestions for their remedy. *Tract.* 8vo. vol. 243. *Chatham*, 1863. 8vo.
- ENGLISH, THOMAS. Specification of Apparatus for Subaqueous Boring. *Tract.* 8vo. vol. 466. *Lond.* 1881. 8vo.
- ENNIS. Copies of any reports made to the Commissioners on the practicability of rendering the town of Ennis a seaport. *Lond.* 1849. folio.
- ENNIS, G., and G. F. The Registration of . . . Stocks, Shares, and Securities: with a chapter on the Forged Transfers Acts, and an appendix of forms, *etc.* *Lond.* 1893. 8vo.
- EPPING FOREST. Report . . . with reference to Epping Forest, with the Minutes of the Board, and Correspondence relating to the subject. (Met. Board of Works.) *Tract.* 8vo. vol. 478. *Lond.* 1871. 8vo.
- ERAMBERT, A. Assainissement et augmentation des eaux de la Bièvre, ou rivière des Gobelins, par le drainage. *Tract.* 8vo. vol. 217. *Versailles*, 1851. 8vo.
- ERDMENGER, L. Bericht über Untersuchungen betreffend die Wirkung der Magnesia im Portlandcement, *etc.* *Tract.* 8vo. vol. 508. *Hannover*, [1893.] 8vo.
- EREDE, G. La celerimensura cogli strumenti comuni. *Tract.* 8vo. vol. 403. *Pistoria*, 1875. 8vo.
- ERICHSEN, —, *Capt.* Vestbanernes og Drammen-Skienbanens Rentabilitet og Bygningsmaade, *etc.* *Tract.* 8vo. vol. 303. [Christiania,] 1877. 8vo.
- ERICSSON, JOHN. Contributions to the Centennial Exhibition. *New York*, 1876. 4to.
- Description of the Caloric Engine. *Tract.* 8vo. vol. 22. *Lond.* 1833. 8vo.
- The Lunar Surface and its Temperature. *Tract.* 8vo. vol. 427. *New York*, 1886. 8vo.
- Monitor of 1854. *Tract.* folio. vol. *New York*, [1854.] folio.
- The Monitors. *Tract.* 8vo. vol. 409. [New York,] 1885. 8vo.
- Movable Torpedoes. *Tract.* 4to. vol. 71. *New York*, 1873. 4to.

- ERICSSON, JOHN—*continued*. Solar Investigations. *Tract.* 4to. vol. 79. *New York*, 1876. 4to.
- The Torpedo Question. *Tract.* 4to. vol. 71. *New York*, 1873. 4to.
- ERIE CANAL. Laws of the State of New York in relation to the Erie and Champlain Canals, etc. 2 vols. *Albany*, 1825. 8vo.
- ERLACH, R. D'. Rapport sur la locomotive à grande vitesse avec avant-train mobile. *Tract.* 8vo. vol. 179. *Paris*, 1855. 8vo.
- ERLENMEYER, E. Die Aufgabe des chemischen Unterrichts gegenüber den Anforderungen der Wissenschaft und Technik. *Tract.* 4to. vol. 68. *München*, 1871. 4to.
- ERNI, H. Coal-Oil and Petroleum, etc. *Philadelphia*, 1865. 8vo.
- Mineralogy simplified; with an introduction to Modern Chemistry. 2nd edition, enlarged. *Philadelphia*, 1885. 8vo.
- ERNST, A. Die Hebezeuge. Theorie und Kritik ausgeführter Konstruktionen. (Atlas of plates.) *Berlin*, 1883. 4to.
- ERSKINE, R. A Dissertation on Rivers and Tides: intended to demonstrate in general the effect of bridges, cuttings, removing of shoals and imbankments; and to investigate in particular the consequences of such works on the river Thames. *Tract.* 8vo. vol. 8. *Lond.* 1770. 8vo.
- ESCAUT. See SCHELD.
- ESCOSURA Y MORROGH, L. DE LA. Historia del tratamiento metalúrgico del azogue en España. *Madrid*, 1878. 8vo.
- ESPINOSA, P. C. Manual de construcciones de albañilería. *Madrid*, 1859. 8vo.
- ESPITALIER, G. Les ballons et leur emploi à la guerre. *Paris*, [1888?] 8vo.
- ESPY, J. P. The Philosophy of Storms. *Lond.* 1841. 8vo.
- ESQUIMALT. Description of the Esquimalt Graving Dock Works, British Columbia. *Tract.* 8vo. vol. 494. *Greenock*, 1888. 8vo.
- ESSEX. Act for improving Roads in . . . Essex. *Lond.* 1785. folio.
- Act for reclaiming . . . Lands on . . . the E. and S.E. coast of Essex. *Lond.* 1852. folio.
- Essex Estuary. Land Reclamation and improvement of the rivers Crouch and Blackwater: plans and sections by Sir J. Rennie and G. Remington. *Lond.* 1851. folio.
- ESSON, W. B. See GLASER DE CREW, G. Magneto- and Dynamo-electric Machines . . . 2nd edition . . . by W. B. Esson. 1887.
- ESTIGNARD, X. Reconnaissance hydrographique de 1875 à l'embouchure de la Seine. Rapport. 1877. folio. (Lithographed.)
- ETHELSTON, C. G. Notes of a visit to the Works of the St. Gothard Railway. *Tract.* 8vo. vol. 317. *Lond.* 1881. 8vo.

- ETHERIDGE, R., and JACK, R. L. Catalogue of works, papers, reports and maps on the Geology, Palæontology, Mineralogy . . . of the Australian Continent and Tasmania. *Lond.* 1881. 8vo.
- ETHEROW, *River*. Report from the Surveying officers, and minutes of evidence on the Etherow Reservoirs Bill. *Lond.* 1847. folio.
- ETNA, *Mount*. Rapport des ingénieurs du corps royal des mines d'Italie sur l'éruption de l'Etna en 1879. 2 pt. *Tract.* 8vo. vol. 456. *Liège*, 1879. 8vo.
- ETZEL, C. VON. See AUSTRIA. [*Railways*.] Oesterreichische Eisenbahnen entworfen und ausgeführt . . . unter der Leitung von C. von Etzel. 1868?
- EUCLID. The Elements of Euclid explain'd in a new, but most easie method, *etc*. [From the French of F. C. F. Milliet de Chales.] Sixth edition. *Lond.* 1720. 12mo.
- Euclid's Elements of Geometry, chiefly from the text of Dr. Simson, with explanatory notes; together with a selection of geometrical exercises . . . by Robert Potts. *Lond.* 1845. 8vo.
- EULER, L. *Éléments d'algèbre*, traduits de l'allemand. 2 vols. *Lyon*, 1795. 8vo.
- Introduction à l'analyse infinitésimale. [Translated from the Latin.] 2 vols. in 1. *Paris*, 1796–97. 4to.
- Letters on different subjects in Physics and Philosophy, translated from the French . . . 2nd edition. 2 vols. *Lond.* 1802. 8vo.
- *Mechanica sive motus scientia analyticè exposita*. 2 vols. *Petropoli*, 1736. 4to.
- EUPHRATES VALLEY RAILWAY. The Euphrates route to India. [A review of W. P. Andrew's "Memoir on the Euphrates Valley Route."] *Tract.* 8vo. vol. 442. *Lond.* 1857. 8vo.
- The Euphrates Railway: the shortest route to India. 2nd edition. *Tract.* 8vo. vol. 442. *Lond.* 1857. 8vo.
- (From *The Times*.)
- Euphrates *versus* Suez: or, which is the shortest? By a Barrister. *Tract.* 8vo. vol. 261. *Lond.* 1857. 8vo.
- Reports from the Select Committee on the Euphrates Valley Railway. *Lond.* 1871–72. folio.
- Reports on Communication with India through Turkey, by the Euphrates Valley Route. *Lond.* 1872. folio.
- EUREKA, *Nevada*. Seven Silver-Lead deposits of Eureka, Nevada: by J. S. Curtis. (U.S.A. Geol. Survey.) *Washington*, 1884. folio.
- EUROPEAN AND NORTH AMERICAN RAILWAY. Plan for shortening the time of passage between New York and London, with documents relating thereto, including the proceedings of the Railway Convention at Portland, Maine, and the charter of the European and North American railway. *Tract.* 8vo. vol. 89. *Portland*, 1850. 8vo.

- EVANS, E. On some Sections of Chalk between Croydon and Oxted with observations on the Classification of the Chalk, *etc.* *Tract.* 8vo. vol. 474. *Lewes*, 1870. 8vo.
- EVANS, G., *Admiral*. Certificate, *etc.*, of the services of Admiral G. Evans. *Tract.* 8vo. vol. 254. *Lond.* 1870. 8vo.
- The Management of Iron Ships abroad. *Tract.* folio. vol. 19. *Liverpool*, 1864. folio.
- A Mode for purifying the Thames. *Tract.* 8vo. vol. 247. [1870?] 8vo.
- Report on the Navigation of the Mersey. *Tract.* 8vo. vol. 102. *Lond.* 1853. 8vo.
- Report on the present State of the Navigation of the river Mersey. *Tract.* 8vo. vols. 71, 212, 169, and 252. [Lond.] 1844, 68, 70, 75. 8vo.
- EVANS, G., and Co. G. Evans and Co., against the State of New York. Testimony. *Tract.* 8vo. *Albany*, 1869. 8vo.
- EVANS, Sir J. Flint Implements in the Drift; being an account of further Discoveries on the Continent and in England. *Tract.* 4to. vol. 46. *Lond.* 1862. 4to.
- Hertfordshire and its Water Supply. *Tract.* 4to. vol. 117. [Hertford?] 1893. 4to.
- Unwritten History, and how to read it, *etc.* *Tract.* 8vo. vol. 473. *Lond.* 1882. 8vo.
- EVANS, O. The young Mill-wright and Miller's Guide. 4th edition. *Tract.* 8vo. vol. 90. *Philadelphia*, 1821. 8vo.
- The young Steam Engineer's guide. *Tract.* 8vo. vol. 90. *Philadelphia*, [1810?] 8vo.
- Manuel de l'ingénieur mécanicien constructeur des machines à vapeur. Traduit de l'anglais, par I. Doolittle. 2^{me} édition. *Paris*, 1825. 8vo.
- EVANS, R. A Report upon the strength and other properties of Anthracite Pig Iron, conducted at Messrs. Whitworth and Co.'s works, *etc.* *Tract.* 8vo. vol. 56. *Manchester*, 1840. 8vo.
- EVANS, T., *Lieut., R.N.* A Chart of Liverpool and Chester Rivers, and of the Coast and Harbours to Holyhead. 3rd edition. *Tract.* 8vo. vol. 18. *Liverpool*, 1821. 8vo.
- EVANS, W. J. The Sugar-planter's Manual, *etc.* *Lond.* 1847. 8vo.
- EVANS, W. W. The Abt System of Railway for Steep Inclines. *Tract.* 8vo. vol. 416. [New York.] 1886. 8vo.
- American Engines and Fairlie Engines compared. *Tract.* 8vo. vol. 298. *New York*, 1877. 8vo.
- American v. English Locomotives, *etc.* *Tract.* 8vo. vol. 451. *New York*, 1880. 8vo.
- A chapter in the History of the Queen's Cup won by the Yacht "America" in 1851. *Tract.* 8vo. vol. 449. *New York*, 1885. 8vo.

- EVANS, W. W.—*continued*. A letter on Crank-Axles in Locomotives and their demerits. *Tract. 8vo. vol. 409. New York, 1884. 8vo.*
- Letter on Plan of Bulkheads and Docks for the City of New York. *Tract. 8vo. vol. 344. New York, 1881. 8vo.*
- A Letter on Railway Gauges, and construction, machinery, economy, *etc.* *Tract. 8vo. vol. 227. New York, 1872. 8vo.*
- A Letter on rapid Transit for New York City. *Tract. 8vo. vol. 256. New York, 1875. 8vo.*
- A Letter . . . on Railway Gauges and Construction, Economy, *etc.* *Tract. 8vo. vol. 238. New York, 1873. 8vo.*
- Carta . . . sobre medida de anchura de los caminos de hierro, i sobre su construccion, maquinaria, economia, *etc.* *Tract. 8vo. vol. 227. Nueva York, 1872. 8vo.*
- A letter to the Chief of the Bureau of Statistics of the United States, being a fagot of Yankee sticks, tough if not telling, consisting of quotations, opinions, free-trade fancies, protection blessings, political economy, *etc.* *Tract. 8vo. vol. 451. New York, 1885. 8vo.*
- Memoir of Thaddeus Kosciuszko, Poland's hero and patriot. *New York, 1883. 4to.*
- Memoranda in reference to Engine Comparisons. *Tract. 8vo. vol. 220. New York, 1870. 8vo.*
- EVANS, W. W., and OTHERS. American v. English Locomotives : correspondence, criticism and commentaries respecting their relative merits. *Tract. 8vo. vol. 318. New York, 1880. 8vo.*
- — [Another edition.] *Tract. 8vo. vol. 318. Leeds, 1880. 8vo.*
- EVELYN, J. An Account of Architects and Architecture, *etc.* *Lond. 1706. folio.*
- Fumifugium : or, the inconveniencie of the aer and smoak of London dissipated. Together with some remedies humbly proposed by J. E. Esq., *etc.* *Tract. 8vo. vol. 219. Lond. 1661. 8vo.*
- A letter . . . concerning the Spanish Sembrador, or new Engine for Ploughing, and equal sowing all sorts of grain . . . Translated from the Spanish. *Tract. 4to. vol. 20. Lond. 1670. 4to.*
(From Phil. Trans.)
- [A Parallel of Ancient Architecture with the Modern . . . From the French of Roland Freart, Sieur de Chambray, *etc.*] *[Lond. 1664.] folio.*
(Title page wanting.)
- EVEREST, G., Col. An Account of the Measurement of two Sections of the Meridional Arc of India. *Lond. 1847. 4to.*
- Rectification of Logarithmic Errors in the measurement of two sections of the Meridional Arc of India, *etc.* *Tract. 8vo. vol. 122. Lond. [1859.] 8vo.*
(From Proc. Royal Soc.)
- EVERETT, A. Map of Victoria, showing the distribution of Forest Trees. *1866. 8vo.*

- EVERETT, G. *The Pathway to Peace and Profit: or, Truth in its plain Dress. Wherein is methodically set forth a sure . . . way for the more speedy and effectual building their Majesties' Royal Navy, etc.* *Tract. 8vo. vol. 72.* *Lond. 1694. 8vo.*
- EVERETT, G. A. *Water Supplies: a statistical compilation from the official reports of the Water Boards in the United States of America, the United Kingdom, and the Canadian Provinces, etc.* *Tract. 8vo. vol. 236.* *Lond. 1874. 8vo.*
- EVERETT, J. D. *Illustrations of the centimetre gramme-second System of Units. Tract. 8vo. vol. 266.* *Lond. 1865. 8vo.*
- *Units and Physical Constants. 2nd edition. Lond. 1879. 8vo.*
- *Vibratory Motion and Sound. Lond. 1882. 8vo.*
- EVERS, H. *Steam and other Prime Movers, etc.* *Lond. [1889.] 8vo.*
- *Steam and the Steam Engine. 32nd thousand. Glasgow, 1887. 8vo.*
- EVARD, A. *Les moyens de transport appliqués dans les mines, les usines, et les travaux publics. 2 vols. (Atlas of plates.) Paris, 1872. 8vo. and 4to.*
- *Traité pratique de l'exploitation des mines. Vol. 1. (Atlas of plates.) Mons, 1879. 8vo. and folio.*
- EWALD, A. C. *The complete Guide to the Home Civil Service. Lond. 1885. 8vo.*
- EWART, C. B. *Report on the proper principle of Drainage to be adopted in the towns of Oxford, Eton, Windsor, and Abingdon. Tract. 8vo. vol. 223.* *Lond. 1868. 8vo.*
- EWART, JOHN. *A letter to C. Dundas, Esq., M.P., on the intended Kennet and Avon Canal. Tract. 8vo. vol. 66.* *Bath, 1796. folio.*
- EWART, JOSEPH. *The sanitary Condition and Discipline of Indian Jails. Lond. 1860. 8vo.*
- EWBANK, T. *A descriptive and historical Account of Hydraulic and other Machines for raising Water, ancient and modern, etc. Lond. 1842. 8vo.*
- — 4th edition. *New York, 1850. 8vo.*
- — 13th edition. *New York, 1854. 8vo.*
- EWING, J. A. *Earthquake Measurement. Tract. 4to. vol. 91.* *Tokio, 1883. 4to.*
- *Magnetic Induction in Iron and other Metals. Lond. 1891. 8vo.*
- *Report on trials of Parsons' Condensing Steam Turbine, using superheated steam. Newcastle-on-Tyne, 1892. obl. 8vo.*
- *"Seismometric Measurements of the Vibration of the New Tay Bridge during the passing of Railway Trains." Tract. 8vo. vol. 462.* *Lond. 1888. 8vo.*

EWING, J. A.—*continued*. The Steam Engine, and other Heat Engines. *Lond.* 1894. 8vo.

EXCHAQUET, H. Dictionnaire des ponts et chaussées, contenant les règles de la construction, les usages, les ordonnances de police, et les arrêts qui concernent l'entretien des grands chemins, etc. *Lausanne et Paris*, 1787. 8vo.

EXETER. Report by Captain Eyre M. Shaw, C.B., concerning the Fire which occurred at the Theatre Royal, Exeter, on the 5th of September, 1887. *Lond.* 1888. folio.

— Reply of the Local Magistrates to the Report of Captain Shaw on the late Fire at Exeter Theatre. *Lond.* 1888. folio.

— *Devon and Exeter Albert Memorial Museum, Schools of Science and Art, and Free Library*. Annual reports. *Tract.* 8vo. vol. 421. *Exeter*, 1886–90. 8vo.

EXHIBITIONS. [Works relating to Exhibitions are catalogued under the place at which each Exhibition was respectively held.]

EXNER, Dr. F. Vorlesungen über Elektrizität, etc. *Leipzig*, 1888. 8vo.

EYES, E. A littoral Survey of the port of Liverpool, etc. *Tract.* 8vo. vol. 198. *Liverpool*, 1870. 8vo.

EYTELWEIN, J. A. Handbuch der Mechanik fester Körper und der Hydraulik. *Leipzig*, 1842. 8vo.

— Handbuch der Statik fester Körper, mit vorzüglicher Rücksicht auf ihre Anwendung in der Architektur. 3 vols. *Berlin*, 1808. 8vo.

— Observations sur les effets et l'application avantageuse du béliier hydraulique. *Paris*, 1822. 4to.

— Recherches sur le mouvement de l'eau, en ayant égard à la contraction qui a lieu au passage par divers orifices, etc. *Tract.* 8vo. vol. 17. *Paris*, 1826. 8vo.

EYTH, M. Wanderbuch eines Ingenieurs. 3 vols. *Heidelberg*, 1871. 8vo.

F.

- FABER, R. S. Catalogue of the Library of the French Protestant Hospital. 1887. *See FRENCH PROTESTANT HOSPITAL.*
- FABRE, J. A. Essai sur la manière la plus avantageuse de construire les machines hydrauliques, et en particulier les moulins à bled. *Paris, 1783. 4to.*
- Essai sur la théorie des torrens et des rivières, contenant les moyens les plus simples d'en empêcher les ravages, d'en rétrécir le lit, et d'y faciliter le navigation, le hallage, et la flottaison; accompagné d'une discussion sur la navigation intérieure de la France; et terminé par le projet de rendre Paris port maritime, en faisant remonter à la voile, par la Seine, les navires qui s'arrêtent à Rouen. *Paris, 1797. 4to.*
- FABRE-DOMERGUE, P. Manuel pratique d'analyse micrographique des eaux. *Paris, 1890. 8vo.*
- FABRETTUS, R. De aquis et aquæductibus veteris Romæ dissertationes tres. *Romæ, 1680. 4to.*
- FACCIOLI, C. R. Archiginnasiodi Bologna. Omaggio del Collegio degli Ingegneri ed Architetti di Bologna agli scienziati commemoranti l'ottavo centenario dello Studio Bolognese. *Bologna, 1888. folio.*
- FADDA, S. Locomotiva. (Estratto dell' Enciclopedia delle arti e industrie.) *Tract. folio. vol. 38. Torino, 1886. folio.*
- Nuovo tipo di caldaia per locomotiva. *Tract. folio. vol. 46. Milano, [1890.] folio.*
- FADDA, S., OLIVETTI, A., and SILVOTA, G. La locomotiva, sua costruzione ed arte di guidarla: manuale compilato sull'opera di Brosius e Koch, etc. 3 vols. *Torino, 1880-1890. 8vo.*
- Dizionario tecnologico italiano, francese, tedesco e inglese, concernente la locomotiva e le strade ferrate; indice alfabetico dei nomi contenuti nell'opera "La locomotiva." *Torino, 1891. 8vo.*
- FAHIE, J. A. On Magneto and Dynamo-Electric Machines. 2nd edition...enlarged. *Tract. 8vo. vol. 409. Dublin, 1884. 8vo.*
- FAHIE, J. J. An Episode in the early History of the Telegraph. *Tract. 8vo. vol. 468. (From "The Electrician.") Lond. 1883. 8vo.*
- Historic Notes on the Telephone. *Tract. 8vo. vol. 468. (From "The Electrician.") Lond. 1883. 8vo.*
- A History of Electric Telegraphy to the Year 1837. *Lond. 1884. 8vo.*
- Honour to whom Honour is due! Edward Davey and the Electric Telegraph. *Tract. 8vo. vol. 468. Lond. 1883. 8vo. (From "The Electrician.")*

- FÅHRÆUS, E. Administratif och statistisk handbok, såsom bihang till Sveriges statskalender. Tredje upplagan. *Stockholm*, 1872. 8vo.
- FAIJA, H. On the Manufacture and Testing of Portland Cement. *Tract. folio. vol. 47.* [*Lond.*] 1893. folio.
- Portland Cement for users. *Lond.* 1881. 8vo.
- FAIR, R. Report on Holyhead and Port Dynllaen Harbours, 1844. *See HOLYHEAD HARBOUR.*
- FAIRBAIRN, H. A plan for converting Turnpike Roads into Railroads; and for suspending the whole of the joint-stock railway schemes. *Tract. 8vo. vol. 201.* *Lond.* 1836. 8vo.
- A treatise on the Political Economy of Railroads, *etc.* *Lond.* 1836. 8vo.
- FAIRBAIRN, T. Britannia and Conway Tubular Bridges: truths and tubes on self-supporting principles, *etc.* *Tract. 8vo. vol. 278.* *Lond.* 1849. 8vo.
- FAIRBAIRN, Sir W. An Account of the Construction of the Britannia and Conway Tubular Bridges; with a complete history of their progress, from the conception of the original idea to the conclusion of the elaborate experiments which determined the exact form and mode of construction ultimately adopted. *Lond.* 1849. 8vo.
- An experimental inquiry into the relative powers of the Locomotive Engine, and the resistance of railway gradients. *Tract. 8vo. vol. 100.* [*Manchester*, 1851.] 8vo.
- An experimental inquiry into the Strength and other properties of Cast Iron, from various parts of the kingdom. *Tract. 8vo. vol. 384.* *Manchester*, 1838. 8vo.
- An experimental inquiry into the Strength and other properties of Anthracite Cast Iron, being a continuation of a series of experiments on British irons, from the various parts of the United Kingdom. *Tract. 8vo. vol. 56.* *Manchester*, 1840. 8vo.
- An experimental inquiry into the Strength of Wrought-iron Plates and their riveted joints, as applied to Shipbuilding and vessels exposed to severe strains. *Tract. 4to. vol. 52.* (*From the Phil. Trans.*) *Lond.* 1850. 4to.
- Experimental researches into the properties of the Iron Ores of Samakoff, in Turkey, and of the Hæmatite ores of Cumberland, *etc.* *Tract. 8vo. vol. 56.* *Lond.* 1844. 8vo. (*From Min. Proc. Inst. C.E.*)
- Experimental researches to determine the strength of Locomotive Boilers, and the causes which lead to explosion. *Tract. 8vo. vol. 111.* (*From Report of the British Association.*) *Lond.* 1854. 8vo.
- Experiments to determine the effect of Impact, Vibratory Action, and long continued Changes of Load on Wrought-Iron Girders. *Tract. 4to. vol. 31.* (*From the Phil. Trans.*) [*Lond.* 1864.] 4to.

- FAIRBAIRN, Sir W.—*continued.* Experiments to determine the Properties of some mixtures of Cast Iron and Nickel. *Tract. 8vo. vol. 126. Manchester, 1858. 8vo.*
- Iron; its History, Properties, and processes of Manufacture. *Edinburgh, 1861. 8vo.*
- — 3rd edition, enlarged. *Edinburgh, 1869. 8vo.*
- Lancashire and Cheshire, *etc.*, 1868–69. *See BAINES, T., and FAIRBAIRN, W.*
- The Life of Sir W. Fairbairn, partly written by himself. Edited and completed by W. Pole. *London, 1877. 8vo.*
- — [Another edition], abridged. *London, 1878. 8vo.*
- Observations on Improvements of the Town of Manchester, particularly as regards the importance of blending in those improvements, the chaste and beautiful, with the ornamental and useful. *Tract. 4to. vol. 70. Manchester, 1836. 4to.*
- On governmental Boiler Inspection. *Tract. 8vo. vol. 195. Manchester, 1870. 8vo.*
- On the application of Cast and Wrought Iron to Building purposes. *London, 1854. 8vo.*
- On the Comparative Value of various kinds of Stone, as exhibited by their powers of resisting compression. *Tract. 8vo. vol. 126. Manchester, 1857. 8vo.*
- On the Mechanical Properties of Metals as derived from repeated meltings, exhibiting the maximum point of strength and the causes of deterioration. *Tract. 8vo. vol. 101. London, 1854. 8vo.*
(From Report of British Association.)
- On the Resistance of Tubes to collapse. *Tract. 4to. vol. 48. London, [1858.] 4to.*
(From the Phil. Trans.)
- On the Strength and other properties of Cast Iron obtained from the hot and cold blast. *Tract. 8vo. vol. 56. London, 1838. 8vo.*
(From Report of the British Association.)
- On the Tensile Strength of Wrought Iron at various temperatures. *Tract. 8vo. vol. 126. London, 1857. 8vo.*
(From Report of the British Association.)
- On Tubular Girder Bridges. *Tract. 8vo. vol. 499. London, 1851. 8vo.*
(From Min. Proc. Inst. C.E.)
- On Water-wheels with ventilated Buckets. With an Abstract of the Discussion upon the paper. *Tract. 8vo. vol. 456. London, 1849. 8vo.*
(From Min. Proc. Inst. C.E.)
- Remarks on Canal Navigation, illustrative of the advantages of the use of steam, as a moving power on canals, *etc.* *Manchester, 1831. 8vo.*
- Report on the Chester and Holyhead Railway. 1846. *See STEPHENSON, R., FAIRBAIRN, Sir W., and HODGKINSON, E.*

- FAIRBAIRN, Sir W.—*continued*. Report on the construction of Fire-proof Buildings: with introductory remarks, by S. Holme. *Tract. 8vo. vol. 67.* *Liverpool, 1844. 8vo.*
- Report on the Consumption of Fuel and the Prevention of Smoke. *Tract. 8vo. vol. 58.* *Lond. 1845. 8vo.*
(From Report of the British Association.)
- Reservoirs on the River Bann for supplying the Mills with Water. *Tract. 8vo. vol. 6.* *Manchester, 1836. 8vo.*
- The rise and progress of Manufactures and commerce and of Civil and Mechanical Engineering in Lancashire and Cheshire. *Manchester, 1869. 4to.*
(From "Lancashire and Cheshire," *etc.*, by T. Baines and W. Fairbairn.)
- Three lectures, on the rise and progress of Civil and Mechanical Engineering, and on popular Education. *Tract. 8vo. vol. 126.* *Derby, 1859. 8vo.*
- Treatise on Iron Ship Building; its history and progress as comprised in a series of experimental researches on the laws of strain, the strengths, forms, and other conditions of the material; and an inquiry into the present and prospective state of the navy, including the experimental results on the resisting powers of armour plates and shot at high velocities. *Lond. 1865. 8vo.*
- Treatise on Mills and Millwork. 2 vols. *Lond. 1861–63. 8vo.*
- Two Lectures on the Construction of Boilers, and on boiler Explosions, with the means of prevention; delivered before the Leeds Mechanics' Institution: also a paper on the Consumption of Fuel and Prevention of Smoke, read before the British Association. *Tract. 8vo. vol. 99.* *Leeds, 1851. 8vo.*
- Useful information for Engineers; being a series of lectures delivered to the working engineers of Yorkshire and Lancashire, together with a series of Appendices, containing the results of experimental inquiries into the strength of materials, the causes of boiler explosions, *etc.* *Lond. 1856. 8vo.*
- — Second series: containing experimental researches on the collapse of boiler flues and the strength of materials, and lectures on popular education, and various subjects connected with mechanical engineering, iron ship-building, the properties of steam, *etc.* *Lond. 1860. 8vo.*
- — Third series: as comprised in a series of lectures on the applied sciences, and on other kindred subjects; together with treatises on the comparative merits of the Paris and London International Exhibitions, on roofs, on the Atlantic cable, and on the effect of impact on girders. *Lond. 1866. 8vo.*
- See BREWSTER, Sir D. On Wrought-iron Tubular Cranes designed by W. Fairbairn. 1852.
- See CRACE-CALVERT, F. On the increased Strength of Cast Iron by use of improved coke: with experiments by W. Fairbairn. 1855.

- FAIRBAIRN, Sir W., and OTHERS. Report of the Committee on Shipping Statistics; presented to the British Association, September, 1858. *Tract.* 8vo. vol. 177. *Lond.* 1858. 8vo.
- Steam Navigation: Vessels of Iron and Wood; the Steam Engine; and on Screw Propulsion. Together with Results of Experiments on the Disturbance of the Compass in Iron-Built Ships: by G. B. Airy, Esq. *Lond.* 1858. folio.
- FAIRBANKS, —. Description of Fairbanks' Patent Weighing Machines. *Tract.* 4to. vol. 39. [1840 ?] 4to.
- FAIRBANKS, S. P. Nova Scotia Mines and Minerals. *Tract.* folio. vol. 10. *Halifax*, 1864. folio.
- FAIRCHILD, C. B. Street Railways: their construction, operation, and maintenance. *New York*, 1892. 4to.
- FAIRFAX, J. The Colonies of Australia: their formation, progress and present state. Discovery of the goldfields. *Tract.* 8vo. vol. 263. *Lond.* 1852. 8vo.
- FAIRLEY, T. On the various forms of Filter Pumps or Water-Jet Aspirators. *Tract.* 8vo. vol. 435. *Manchester*, 1887. 8vo.
(From the Journal of the Society of Chemical Industry.)
- FAIRLEY, W. Notes on the Purification of Sewage. *Tract.* 8vo. vol. 483. *Edinburgh*, 1889. 8vo.
- FAIRLIE, R. F. Correspondence in refutation of the attacks made upon the Fairlie Engine. *Lond.* 1876-78. 8vo.
- Locomotive Engines: what they are and what they ought to be. *Tract.* 8vo. vol. 279. *Lond.* 1864. 8vo.
- Observations on the Construction of Railway Carriages; together with a paper on railways and their management. *Tract.* 8vo. vol. 166. *Lond.* 1868. 8vo.
- Opinions of the press on the Fairlie Engine. *Tract.* 8vo. vol. 164. *Lond.* 1868. 8vo.
- Railways or no Railways. Narrow Gauge, economy with efficiency, v. Broad Gauge, costliness with extravagance. *Lond.* 1872. 8vo.
- Result of Experiments with the Fairlie Locomotive. *Tract.* folio. vol. 9. (Lithographed.) 1870. folio.
- The Safes' Challenge Contest at the International Exhibition of Paris, 1867, etc. See MALLEY, R., and FAIRLIE, R. F.
- FAIRMAN, E. St. J. A treatise on the Petroleum Zones of Italy. *Tract.* 8vo. vol. 208. *Lond.* 1868. 8vo.
- FALCK, N. D. An Account and Description of an improved Steam Engine; which will, with the same quantity of fuel, and in an equal space of time, raise above double the quantity of water than any lever engine of the same dimensions. *Tract.* 8vo. vol. 225. *Lond.* 1776. 8vo.
- FALCONER, H. Report on Teak Forests. 1852. See INDIA.—TENASSERIM.

- FALCONER, W. A new Universal Dictionary of the Marine: being a copious explanation of the technical terms and phrases, illustrated with a variety of modern designs of shipping, *etc.*; to which is annexed, a vocabulary of French sea-phrases and terms of art. . . . Enlarged by W. Burney. *London*. 1815. 4to.
- FALCONIERI, C. New Process for laying the Submarine Telegraph Cable. [1870?] See LANDI, T., and FALCONIERI, C.
- FALCONNET, G. P., *Maj.*, *R.E.* Brick and Tile Manufacture at Allahabad. *Boorkee*, 1874. 8vo.
- FALKINER, T. H., and TANCRED, T. S. Thames Valley Drainage Acts, 1871 and 1874. Report on the Drainage of Lands within the Jurisdiction of the Commissioners, July 28, 1876. *Tract*. 4to. *London*. 1876. 4to.
- FALMOUTH. Falmouth and Gibraltar Cable. Papers explanatory of the intended transfer of the . . . Cable to a line from Rangoon to Singapore. *London*. 1860. folio.
- Report from the Surveying Officers, with Minutes of Evidence on the Falmouth Waterworks Bill. *London*. 1847. folio.
- FAMAGUSTA HARBOUR, *Cyprus*. Report by Mr. Ormiston on proposed improvements. *London*. 1880. folio.
- FAMBRI, P. Intorno alle ultime pubblicazioni del Comm. A. Cialdi. Illuminazione e segnalamento dei litorali e dei porti. *Tract*. 8vo. *vol.* 308. [Venezia, 1879.] 8vo.
- FANNING, J. T. A practical treatise on Water-Supply Engineering . . . in North America, *etc.* *New York*, 1877. 8vo.
- — 9th edition, enlarged. *New York*, 1891. 8vo.
- Report on a Water-Supply for New York and other cities of the Hudson Valley. *Tract*. 8vo. *vol.* 341. *New York*, 1881. 8vo.
- Report No. 2 on a water supply for New York and other cities of the Hudson Valley. *Tract*. 8vo. *vol.* 378. *New York*, 1884. 8vo.
- Report on the Winnipeg Water Power of the Assiniboine River in Manitoba. *Tract*. 8vo. *vol.* 490. *Minneapolis*, 1889. 8vo.
- FARADAY, H. Gas in the House: some hints and suggestions. *Tract*. 8vo. *vol.* 308. *London*. 1879. 8vo.
- FARADAY, J. Description of a mode of obtaining the perfect Ventilation of Lamp-burners. *Tract*. 8vo. *vol.* 502. (From Min. Proc. Inst. C.E.) *London*. 1843. 8vo.
- FARADAY, M. Chemical Manipulation; being instructions . . . on the methods of performing experiments of demonstration or research. 3rd edition. *London*. 1842. 8vo.
- A Course of six Lectures on the Chemical History of a Candle; to which is added a lecture on Platinum. Edited by W. Crookes. *London*. 1861. 8vo.

- FARADAY, M.—*continued*. A Course of six Lectures on the various Forces of Matter. Edited by W. Crookes. 3rd edition. *Lond.* 1861. 8vo.
- Experimental researches in Electricity. 2nd edition. 2 vols. *Lond.* 1849. 8vo.
- On the Manufacture of Glass for optical purposes. *Tract* 4to. vol. 56. (From the "Philosophical Transactions.") *Lond.* 1830. 8vo.
- On the practical Prevention of Dry Rot in Timber; being the substance of a lecture delivered at the Royal Institution. *Tract* 8vo. vol. 72. (From Min. Proc. Inst. C. E.) *Lond.* 1838. 8vo.
- On the Ventilation of Lighthouse Lamps, etc. *Tract* 8vo. vol. 72. (From Min. Proc. Inst. C. E.) *Lond.* 1843. 8vo.
- The subject matter of a course of six Lectures on the Non-metallic Elements. Arranged by J. Scoffern. *Lond.* 1853. 12mo.
- See HASWELL COLLIERIES. Copy of Report of Messrs. Lyell and Faraday on an explosion, 1845.
- FAREY, J. A Treatise on the Steam Engine, etc. *Lond.* 1827. 4to. (MS. corrections by the author, dated 1842.)
- See GODFREY, A. Account of the new method of extinguishing fires. [With MS. notes by J. Farey relative to the author.] 1724.
- FARGUE, —. Rational outline of artificial Banks of a navigable River with movable bottom. [5th. Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.
- FARIA ARAGAO, A. F. DE. Horografia ou gnomonica Portuguesa, a qual contem a theoria, e juntamente a pratica de fazer relógios solares, etc. *Lisboa*, 1805. 8vo.
- FARMER, J. "Patent" Machine for Drying and Pulverising Blood, Excrementitious Matter, and other materials and compounds. *Tract* folio. vol. 42. *Manchester*, [1883?] folio.
- FARMER, J., and FRASER, J. [Reports on the Drainage of various districts of Ireland.] *Dublin*, 1847. 8vo.
- FARQUHAR, Sir R., Bart. Objections to the Thirlmere Scheme. (Manchester Water Bill, 1879.) *Tract* 8vo. vol. 306. *Ambleside*, 1879. 8vo.
- FARQUHARSON, F., and WESTON, W. Results of a series of experiments made in Portsmouth Dockyard with the view of ascertaining what loss of Strength and Ductility takes place in Gun Metal compositions when raised to high temperatures. *Tract* folio. vol. 24. 1877. folio.
- FARR, C. C. A determination of the Magnetic Elements at the Physical Laboratory, University of Sydney, etc. [Sydney, 1892.] 8vo.

- FARR, W., and CHADWICK, Sir E. National Association for the Promotion of Social Science. Water Supply of the Metropolis. Report to the Council on the Terms of Purchase of the Water Companies' Undertakings, May 1, 1879. *Tract. 8vo. vol. 452.*
London. 1879. 8vo.
- FARRELL, J. B. [Reports on the Drainage and Improvement of Lands in various districts of Ireland.] *Dublin, 1844-49. 8vo.*
- FARRELL, M. [Reports on the Drainage and Improvement of Lands in various districts of Ireland.] *Dublin, 1846-50. 8vo.*
- FARREN, G. A few Facts and Reasons in favour of Joint Stock Banks; in reply to the pamphlet of G. Farren. By Civis. *Tract. 8vo. vol. 63.*
London. 1833. 8vo.
- FARREN, GEORGE. The Construction of small Breakwaters and the Silting they give rise to. *Tract. 8vo. vol. 488.*
[Liverpool,] 1889. 8vo.
- On Forces used by Engineers considered as Velocities, etc. *Tract. 8vo. vol. 517.*
Liverpool, 1893. 8vo.
- Stability of Earthen and Masonry Dams. (Read before the Liverpool Engineering Society.) *Tract. 8vo. vol. 488.*
[Liverpool,] 1889. 8vo.
- FARRER, Sir T. C. Express Trains, etc. 1889. See FOXWELL, E., and FARRE, Sir T. C.
- FARRER, Sir T. H. Letter as to the Tynemouth Light. *Tract. folio. vol. 9.*
London. 1870. folio.
- Memorandum showing generally the alterations which would be made in the present law by the enactment of the Merchant Shipping Code, 1870. *Tract. 8vo. vol. 98.*
London. 1870. 8vo.
- FARROW, E. S. Military Encyclopedia. : 3 vols.
New York, 1885. 4to.
- FARWELL, G. Die Anlage von schmalspurigen Sekundärbahnen und die Aufbringung der Mittel zur Herstellung derselben. Nebst Vorschlägen zum Bau eines vollständigen sekundärbahnnetzes im Kreise Unterfranken. *Tract. 8vo. vol. 319.*
Würzburg, 1880. 4to.
- FAUDEL, —, and SCHWOERER, E. G. A. Hirn, sa vie, sa famille, ses travaux. *Paris, 1893. 8vo.*
- FAUL, A. A short treatise on Leveling by Vertical Angles, and the method of measuring Distances by Telescope and Rod: with tables of heights. *New York, 1886. 8vo.*
- FAUNCE-DELAUNE, C. D. On laying down land to permanent grass. *Tract. 8vo. vol. 473.*
London. 1882. 8vo.
- FAURE, F. Le Havre en 1878. (Exposition Universelle de 1878. Chambre de Commerce du Havre.) *Havre, 1878. 8vo.*

- FAVARO, A. Della vita e degli scritti di Carlo Culmann. *Tract.*
8vo. vol. 338. Venezia, 1882. 8vo.
- Intorno ad un recente lavoro del Dr. Cantor sugli agrimensori
Romani. *Tract. folio. vol. 22.* Roma, 1876. folio.
- Intorno ad una nuova sorgente di forza motrice. *Tract. 8vo.*
vol. 250. Padova, 1874. 8vo.
- Intorno ad uno strumento ordinato a calcolare i risultati d'osser-
vazioni ottenuti mediante apparecchi autografici. *Tract. 8vo.*
vol. 267. Venezia, 1876. 8vo.
- Intorno al concorso per un dizionario tecnico. *Tract. 8vo.*
vol. 267. Bologna, 1876. 8vo.
- Intorno alla soluzione grafica di alcuni problemi pratici. *Tract.*
8vo. vol. 272. Padova, 1877. 8vo.
- Lezioni di statica grafica. Padova, 1877. 8vo.
- Norme di costruzione per aumentare la resistenza degli edifizii
contro il terremoto. *Tract. 8vo. vol. 475.* Venezia, 1883. 8vo.
- Notizie storico-critiche sulla costruzione delle equazioni. (Ap-
pendix.) Modena, 1878-80. 4to.
- Procedimento grafico per la riduzione degli angoli al centro di
stazione. *Tract. 8vo. vol. 310.* Torino, 1819. 8vo.
- La Statica grafica nell' insegnamento tecnico superiore.
Venezia, 1873. 8vo.
- Sulla elica calcolatoria di Fuller, etc. *Tract. 8vo. vol. 313.*
Venezia, 1879. 8vo.
- Sulla rappresentazione grafica dei prezzi delle derrate. *Tract.*
8vo. vol. 245. Padova, 1875. 8vo.
- Sulla teoria dei poligoni funicolari. *Tract. 8vo. vol. 281.*
Padova, 1877. 8vo.
- Sulle prime operazioni del calcolo grafico. *Tract. 8vo. vol. 245.*
Venezia, 1872. 8vo.
- Il traforo del Gottardo: note di una visita ai lavori. *Tract.*
8vo. vol. 256. Padova, 1874. 8vo.
- FAVERSHAM. Explosion at the Detonator Factory. Report by
Major Majendie. Lond. 1878. folio.
- — Report by Major Ford. Lond. 1879. folio.
- Report on the explosion of a glazing-house at Faversham Marsh.
Lond. 1879. folio.
- Report by Major Majendie on an Explosion at Hall and Son's
Gunpowder Factory at the Marsh, Faversham.
Lond. 1881. folio.
- FAWKES, F. A. Hot-Water Heating on the Low Pressure System.
Lond. 1882. 8vo.

- FAY, C. A letter to Captain Galton, in reply to Lieut.-Col. Yolland's Report on comparative experiments with Messrs. Newall and Fay's Breaks. *Tract. 8vo. vol. 117.* Manchester, 1858. 8vo.
- On the saving of Dead Weight in Passenger Trains. *Tract. 8vo. vol. 138.* (From Proc. Inst. M.E.) Birmingham, 1857. 8vo.
- Specification of Apparatus for working Railway Breaks. *Tract. 4to. vol. 50.* Lond. 1859. 4to.
- FAYE, H. Sur la situation actuelle du Bureau des Longitudes. *Tract. 4to. vol. 71.* Paris, 1872. 4to.
- FEATHERSTONE. Minutes of Evidence taken before the Committee appointed to enquire into the ... disturbances at Featherstone, [which occurred in connection with the great Coal Strike] on 7th September, 1893. Lond. 1893. folio.
- Report of the Committee. Lond. 1893. folio.
- FEATHERSTONHAUGH, G. W. Report of a Geological Reconnaissance made in 1835, from the seat of government, by the way of Green Bay and the Wisconsin Territory, to the Coteau de Prairie, an elevated ridge dividing the Missouri from the St. Peter's River. Washington, 1836. 8vo.
- FECHT, H. Ueber die Anlage von Stauweiern in den Vogesen, insbesondere über den Bau des Stauweihers im Alfeld. *Tract. folio. vol. 43.* Berlin, 1889. folio.
- Ueber die Anlage und den Betrieb von Stauweiern in den Vogesen, insbesondere über den Bau der Stauweiher im oberen Fechtthale, etc. *Tract. 4to. vol. 120.* Berlin, 1893. 4to.
- FEDERATED INSTITUTION OF MINING ENGINEERS. Transactions. Vol. I., 1889-92, etc. Edited by M. W. Brown, Secretary. Newcastle-upon-Tyne, 1892, etc. 8vo.
- FEDOROW, E. Die Grundformeln der analytischen Geometrie. *Tract. 8vo. vol. 464.* St. Petersburg, 1888. 8vo.
- FEER-HERZOG, C. Les chemins de fer alpestres et le Saint-Gothard. *Tract. 8vo. vol. 458.* [Paris, 1865.] 8vo.
(From the "Revue des Deux Mondes.")
- FEHLAND, H. Ingenieur Kalender. Berlin, 1882, etc. 8vo.
- FELIXSTOWE AND BAWDSEY FERRY RAILWAY. (Extension of Time) Act, 1890. Lond. 1890. folio.
- FELKIN, W. A History of the machine-wrought Hosiery and Lace Manufactures. Cambridge, 1867. 8vo.
- FELL, J. B. Lecture on the use of improved Narrow-Gauge Railways in the Operations of War; and for other special objects. *Tract. 8vo. vol. 238.* Aldershot, 1873. 8vo.
- Military Field Railways: paper read at the meeting of the British Association, etc. *Tract. 8vo. vol. 279.* Ulverston, 1876. 8vo.

- FELL, J. B.—*continued*. A Paper read at the meeting of the British Association on Locomotive Engines and Carriages on the Centre-rail system, as employed on the Mont Cenis Railway. *Tract.* 8vo. vol. 157. *Ulverston*, 1866. 8vo.
- Patent Narrow Gauge Railways, adapted for inexpensive branches to main lines of railway : also for the use of mines, and in foreign countries. *Tract.* 8vo. vol. 207. *London*. [1871.] 8vo.
- FELLMER, R. Wörterbuch der practischen Mechanik und des Maschinenbaues in deutsch-französisch-englischer Sprache, etc. Zweite Auflage. *Berlin*, 1866. 8vo.
- FELLOWS, F. P. On the Impediments to the Introduction of the Metrical System of weights and measures. 2nd edition. *Tract.* 8vo. vol. 172. *London*. 1863. 8vo.
- FELTON, J. H. The Decimal System : an argument for American consistency in the extension of the decimal scale to weights and measures in harmony with the national currency. *New York*, 1857. 12mo.
- FELTON, W. A Treatise on Carriages ; together with their proper harness ; in which the fair prices of every article are accurately stated. *London*. 1794. 8vo.
- FENNEL, O. Les tachéomètres Wagner-Fennel de l'Institut mathématique-mécanique. *Tract.* 8vo. vol. 450. *Paris*, 1887. 8vo.
- FENS. [For Acts, etc., relating to the Great Level of the Fens :] See BEDFORD LEVEL.
- FENTON, J. Specification of Safety-valves. *Tract.* 8vo. vol. 61. *London*. 1854. 8vo.
- FENWICK, A. The Truth about Sewage in a few words. *Tract.* 8vo. vol. 236. *London*. 1874. 8vo.
- FENWICK, S. The Mechanics of Construction ; including the theories of the strength of materials, roofs, arches, and suspension-bridges. *London*. 1861. 8vo.
- FENWICK, T. Elementary and practical Treatise on Subterraneous Surveying, and the magnetic variation of the needle, etc. 3rd edition. *London*. 1861. 8vo.
- Essays on Practical Mechanics. 3rd edition. *Durham*, 1822. 8vo.
- A theoretical and practical Treatise on Subterraneous Surveying, and the Magnetic Variation of the Needle. *Newcastle-upon-Tyne*, 1804. 8vo.
- — [Another edition.] *Durham*, 1822. 8vo.
- FÉRAUD-GIRAUD, L. J. D. Code des mines et mineurs. 3 vols. *Paris*, 1887. 12mo.

FER DE LA NOUERRE, F. DE. La science des canaux navigables, ou théorie générale de leur construction. De la possibilité de faciliter l'établissement général de la navigation intérieure du royaume, de supprimer les corvées, etc. 2 vols.

Paris, 1786. 8vo.

— Réflexions sur le projet de l'Yvette, pour servir de supplément aux détails de ce projet, insérés dans un livre intitulé, "De la possibilité de supprimer des corvées, etc." Paris, 1786. 8vo.

FERET, R. Choice of Sand, and proportions of Cement for Mortars in Sea Works. [2nd Int. Mar. Congr.] [Lond. 1893.] 8vo.

— Note sur diverses expériences concernant les ciments, etc. Tract. 8vo. vol. 507. Paris, 1890. 8vo.

— Note sur les mortiers et bétons de ciment. Tract. 8vo. vol. 507. Paris, 1891. 8vo.

— Sur la compacité des mortiers hydrauliques. Paris, 1892. 8vo.
(From the Annales des ponts et chaussées.)

FERGUSON, J. An introduction to Electricity, etc.

Lond. 1770. 8vo.

— Lectures on select subjects in Mechanics, Hydrostatics, Hydraulics, Pneumatics, and Optics; with the use of the globes, the art of dialling, and the calculation of the mean times of new and full moons and eclipses. 9th edition, with supplement. (Atlas of plates.) Lond. 1799. 8vo.

FERGUSON, R. M. Electricity. New edition, revised and extended by J. Blyth. Lond. 1876. 8vo.

— — [Another edition.] Lond. 1882. 8vo.

FERGUSON, J. An Essay on a proposed new system of Fortification: with hints for its application to our national defences. Lond. 1849. folio.

— A History of Architecture in all countries, from the earliest times to the present day. 2 vols. Lond. 1865-67. 8vo.

— History of Indian and Eastern Architecture. Lond. 1876. 8vo.
(Forming the third volume of the new edition of the "History of Architecture.")

— History of the modern Styles of Architecture. Second edition. Lond. 1873. 8vo.
(Forming the fourth volume of the new edition of the "History of Architecture.")

— The illustrated Handbook of Architecture: being a concise and popular account of the different styles of architecture prevailing in all ages and countries. 2 vols. Lond. 1855. 8vo.

— Lectures on Architecture. Tract. 8vo. vol. 243. Chatham, 1862. 8vo.

— On recent changes in the Delta of the Ganges. Tract. 8vo. vol. 145. [Lond. 1863.] 8vo.

(From the Quarterly Journal of the Geological Society.)

- FERGUSSON, J.—*continued*. The Peril of Portsmouth: French fleets and English forts. *Tract. 8vo. vol. 168. Lond. 1852. 8vo.*
- Portsmouth protected: a sequel to "The peril of Portsmouth." With notes on Sebastopol and other sieges during the present war. *Tract. 8vo. vol. 168. Lond. 1856. 8vo.*
- Rude Stone Monuments in all countries; their age and uses. *Lond. 1872. 8vo.*
- FERNANDEZ, P. The late P. Fernandez. *Tract. 8vo. vol. 69.*
(From the London Medical Gazette.) *Lond. [1836.] 8vo.*
- FERNILEE. Report on the circumstances attending an Explosion of Gunpowder and Blasting-Cartridges which occurred at the Factory of Messrs. Williamson and Co., at Fernilee, near Whaley Bridge: by Major J. P. Cundill. *Lond. 1888. folio.*
- FERNIQUE, A. F. Album d'éléments et rognons de machines. (Atlas.) *Paris, 1882. folio.*
- FERRARIS, G. Ricerche teoriche e sperimentali sul generatore secondario Gaulard e Gibbs. *Tract. 4to. vol. 96.*
Torino, 1885. 4to.
- FERRARIS, G., and OTHERS. Ueber die Frage der Einführung der electrischen Beleuchtung in hiesiger Stadt (Frankfurt a. M.). *Tract. folio. vol. 48. Frankfurt a. M., 1889. folio.*
- FERRARIS, M. Legislazione sulle tramvie. *Tract. 4to. vol. 85.*
Roma, 1881. 4to.
- Noti sulle ferrovie inglesi. *Tract. 4to. vol. 85.*
Roma, 1881. 4to.
- FERREL, W. The Motions of Fluids and Solids relative to the earth's surface; comprising applications to the winds and the currents of the ocean. *Tract. 4to. vol. 45. New York, 1860. 4to.*
- A popular Treatise on the Winds, etc. *Lond. 1889. 8vo.*
- FERREY, B. Recollections of A. N. Welby Pugin, and his father, Augustus Pugin; with notices of their works. *Lond. 1861. 8vo.*
- FERRIA, G. G. Ergometro per lo studio della stabilità delle costruzioni e della elasticità dei materiali. *Tract. 4to. vol. 104.*
Torino, 1885. 4to.
- FERRIER, W. F. Catalogue of a Stratigraphical Collection of Canadian Rocks: prepared for the World's Columbian Exposition, Chicago, 1893. [*Geological Survey of Canada.*]
Ottawa, 1893. 8vo.
- FERRINI, R. Technologie der Electricität und des Magnetismus. *Jena, 1879. 8vo.*
- I recenti progressi nelle applicazioni dell' elettricità. *Milano, 1884. 8vo.*
- FERRONI, P. Della vera curva degli archi del ponte a S. Trinità di Firenze. Discorso geometrico-storico. *Tract. 4to. vol. 39.*
Verona, 1808. 4to.

FESTINIOG. Report by Major Ford on an Explosion which occurred in Festiniog Tunnel. *Lond.* 1877. folio.

FESTINIOG RAILWAY. Report by the Board of Trade... on the Classification of Merchandise Traffic and Schedule of Maximum Rates, *etc.* *Lond.* 1891. folio.

FETTU, —. Note sur les locomotives compound à 4 cylindres à chassis articulé—système Mallet—*etc.* *Tract. folio. vol.* 48.

Paris, 1891. 4to.

FIANDRA, G. V. Studio preliminare a programma di progetto di un canale intermarittimo Venezia-Spezia, 1889. *See* ROMANO, G. A., and FIANDRA, G. V.

FICHET, A. Études sur la combustion et sur la construction rationnelle des foyers industriels. *Tract. 8vo. vol.* 420.

Paris, 1874. 8vo.

— Exposition universelle de 1878. Notice sur les appareils présentés par MM. Muller et Fichet, *etc.* 1878. *See* MULLER, —, and FICHET, A.

— Notice sur l'appareil crématoire construit pour le compte de la ville de Paris au cimetière de l'Est, en 1890. *Tract. 8vo. vol.* 513.

Paris, 1891. 8vo.

— Notice sur l'appareil de M. Orsat pour l'analyse des gaz. *Tract. 8vo. vol.* 235.

Paris, 1873. 8vo.

(From Mémoires de la Société des Ingénieurs Civils.)

FICHET, A., and PÉRISSÉ, S. Mémoire sur les procédés et applications du chauffage par gazogènes. *Tract. 8vo. vol.* 410.

Paris, 1880. 8vo.

FIDLER, T. C. On the evidence of Scientific Knowledge in the remains of Ancient Architecture and Engineering. *Tract. 4to. vol.* 117.

[*Lond.* 1892.] 4to.

— A practical Treatise on Bridge Construction: being a text-book on the design and construction of bridges in Iron and Steel.

Lond. 1887. 8vo.

— — Second edition.

Lond. 1893. 8vo.

— The Study and Practice of Engineering: an introductory lecture, *etc.* *Tract. 8vo. vol.* 522.

Dundee, 1891. 8vo.

FIELD, B. Geographical Memoirs on New South Wales; by various hands. Edited by B. Field. *Lond.* 1825. 8vo.

FIELD, C. W. The Atlantic Telegraph. *Tract. 8vo. vol.* 185.

Lond. 1856. 8vo.

FIELD, J. An Analysis of the Metropolitan Gas Companies' Accounts for the Year 1869 (1870, *etc.*). *Lond.* [1872, *etc.*] 8vo.

FIELD, J. R. Report on Dublin Barracks, 1889. *See* DUBLIN—[Barracks.]

FIELD, L. Cantor Lectures on Solid and Liquid Illuminating Agents. *Lond.* 1883. 8vo.

- FIELD, R. Bye Laws and Regulations with reference to House Drainage. *Tract. 8vo. vol. 275.* Lond. 1877. 8vo.
- Second edition. *Tract. 8vo. vol. 297.* Lond. 1878. 8vo.
- On certain less recognised but important points in the Drainage and Ventilation of Houses. *Tract. 8vo. vol. 469.* Lond. 1882. 8vo.
- On Self-acting Intermittent Siphons and the conditions which determine the commencement of their action. *Tract. 8vo. vol. 425.* Lond. 1879. 8vo.
- Practical suggestions as to Water Supply, Drainage, and Sewage Disposal for Lunatic Asylums; issued by the Commissioners in Lunacy. *Tract. 8vo. vol. 533.* Lond. 1892. 8vo.
- Uppingham Sewage and private Drainage. Report to the rural sanitary authority. *Tract. folio. vol. 21.* Lond. 1876. folio.
- See EASSIE, W. Healthy and unhealthy houses... With Appendix on Water-Supply and Disposal of Sewage, by R. Field. 1884.
- FIELD, R., and PEGGS, J. W. Water Supply for Country Houses. *Tract. 8vo. vol. 359.* Lond. 1883. 8vo.
- FIELDING, T. H. Synopsis of practical Perspective, lineal and aerial. 2nd edition, enlarged. Lond. 1836. 8vo.
- FIFE, J. G. Irrigation in Lower Egypt, etc. 1856. See EGYPT.—[Irrigation.]
- Project for the Water Supply of Poona and Kirkee. 1866. See INDIA.—POONA.
- FIFE, J. G., and OTHERS. Reports on the Eastern Narra River. 1857-61. See INDIA.—NARRA.
- FIGUIER, L. L'année scientifique et industrielle; ou exposé annuel des travaux scientifiques, etc. Paris, 1857, etc. 8vo.
- Les chemins de fer métropolitains. Paris, [1886.] 8vo.
- Les eaux de Paris; leur passé, leur état présent, leur avenir. Paris, 1862. 8vo.
- Les merveilles de la science. 4 vols. Paris, 1877. 8vo.
- The Ocean World: being a description of the sea and some of its inhabitants. New edition. Lond. 1872. 8vo.
- Le percement du Mont-Cénis. *Tract. 8vo. vol. 383.* Paris, 1872. 8vo.
- Le téléphone. Paris, [1885 f] 8vo.
- FIJNJE, J. G. W., and DISEN, G. VAN. Verslag eener reis gedaan in Januarij 1862 op last van den minister van binnenlandsche zaken, tot onderzoek naar de inrigting van de spoorwegbrug over den Rijn bij Mainz. *Tract. 4to. vol. 48.* 's Gravenhage, 1862. 4to.

- FILLITER, E. Leeds Corporation Waterworks. Report on the best mode of obtaining an additional and purer supply of water for ... Leeds. *Leeds*, 1866. 8vo.
- Report upon the Railway Schemes affecting the Borough of Leeds, in Parliament in 1864. *Tract. 8vo. vol. 146.*
Leeds, 1864. 8vo.
- FINARDI, Z. Manuale di celerimensura e tavole dei valori naturali delle linee trigonometriche di primo in primo centesimale. *Torino*, 1886. 8vo.
- FINCATI, L. Vocabolario nautico inglese-italiano e italiano-inglese. *Roma*, 1877. 12mo.
- FINCH, E. Description of proposed Improvements in the Metropolis. *Tract. 8vo. vol. 134.* *Lond.* 1861. 8vo.
- FINCHAM, J. Directions for Laying off Ships on the Mould-loft Floor. 2nd edition, enlarged. *Lond.* 1840. 8vo.
- An Outline of Ship Building ... 3rd edition, enlarged. *Lond.* 1852. 8vo.
- A Treatise on Mastng Ships and Mast making, etc. 3rd edition. *Lond.* 1854. 8vo.
- FINDLAY, A. G. A Description and List of the Lighthouses of the World. 19th edition. *Lond.* 1879. 8vo.
- FINDLAY, C. F. On the Design of Movable Bridges. *Tract. 8vo. vol. 327.* *Liverpool*, 1881. 8vo.
- FINDLAY, Sir G. Irish Railways and State Purchase. *Tract. 8vo. vol. 428.* *Lond.* 1886. 8vo.
- Report of a Lecture delivered at the School of Military Engineering, [on] "The Working of an English Railway." *Tract. 8vo. vol. 458.* *Lond.* 1888. 8vo.
- The Working and Management of an English Railway. 3rd edition. *Lond.* 1890. 8vo.
- — 4th edition. *Lond.* 1891. 8vo.
- FINGAL, *Tasmania*. Report on Fingal and Mount Nicholas Coal Deposits: by G. Thureau. [*Hobart*,] 1883. folio.
- FINK, A. Argument before the committee on Commerce, U.S.A., on Interstate Commerce. *Tract. 8vo. vol. 340.*
Washington, 1882. 8vo.
- Argument on the Reagan Bill. *Tract. 8vo. vol. 302.*
New York, 1879. 8vo.
- Cost of Passenger Traffic on American Railroads. *Tract. 8vo. vol. 260.* *Louisville*, 1876. 8vo.
- Cost of Railroad Transportation, railroad accounts, and governmental regulation of railroad tariffs. *Tract. 8vo. vol. 256.*
Louisville, 1875. 8vo.
- Measures for securing stable, equitable and indiscriminating Railway Tariffs. *Tract. 8vo. vol. 458.* *New York*, 1885. 8vo.

- FINK, A.—*continued*. The Railroad Problem and its Solution. *Tract*. 8vo. vol. 319. New York, 1880. 8vo.
- Report upon the Adjustment of Railroad Transportation Rates to the Seaboard. *Tract*. 8vo. vol. 345. New York, 1882. 8vo.
- Statistics regarding the Movement of eastbound and westbound Traffic over the Trunk Lines and connecting roads; also showing the grain receipts at and exports from the Atlantic cities. *Tract*. 8vo. vol. 458. New York, 1884. 8vo.
- Testimony of A. Fink before the Select Committee on interstate commerce of the United States Senate. *Tract*. 8vo. vol. 412. Washington, 1885. 8vo.
- FINKELNBURG, C. Geschichtliche Entwicklung und Organisation der öffentlichen Gesundheitspflege in den Kulturstaaten. [*Handbuch der Hygiene: herausgegeben von Dr. T. Weyl*. Bd. 1.] Jena, 1893. 8vo.
- FINLAISON, J. An account of some remarkable Applications of the Electric Fluid to the useful arts, by Mr. Bain; with a vindication of his claim to be the first inventor of the electro-magnetic printing telegraph, and also of the electro-magnetic clock. *Tract*. 8vo. vol. 57. Lond. 1843. 8vo.
- FINLAY, K. Information and rules and regulations for traders on Forth and Clyde canal navigation; also table of tolls, etc. *Tract*. 8vo. vol. 88. Glasgow, 1820–22. 8vo.
- FINLAYSON, J. F. The Symbols and Legends of Freemasonry. Lond. 1889. 8vo.
- FINLEY, J. P. Character of Six Hundred Tornadoes. *Tract*. 4to. vol. Washington, 1882. 4to.
- FINNER, J. Narrative and Notes on Nicaragua in 1859. *Tract*. 8vo. vol. 440. Lond. [1860?] 8vo.
- FINTENER, —, *Prof. Dr.* Gutachten über das Ergebniss der vier Versuchsstationen an den Müggelbergen bei Köpenick zur Gewinnung eines als Leitungswasser brauchbaren Grundwassers. *Tract*. 8vo. vol. 417. Berlin, 1886. 8vo.
- FIRKET, A. Examen des études sur l'existence possible de la houille aux environs de Londres. *Tract*. 8vo. vol. 466. Paris, 1882. 8vo.
- Notices sur la carte de la production par commune des carrières de la Belgique pendant l'année 1871 et 1878. *Tract*. 8vo. vol. 253. Bruxelles, 1874–81. 8vo.
- Sur des cristaux de quartz et de calcite de l'étage houiller. *Tract*. 8vo. vol. 474. [Bruxelles,] 1882. 8vo.
- (From Ann. de la Soc. géol. de Belg.)
- FIRTH, J. F. B. Municipal London: or, London Government as it is and London under a Municipal Council. Lond. 1876. 8vo.

- FISCHER, H. Geschichte, Eigenschaften und Fabrikation des Lino-
leums. *Leipzig*, 1888. 8vo.
- FISCHER, J. B. Entwürfe einer historischen Architectur, in
Abbildung unterschiedener berühmten Gebäude des Alterthums
und fremder Völker, etc. 4 vols. in 3. *Leipzig*, 1725. folio.
- FISCHER-TREUENFELD, R. von. Current Fallacies in Naval
Architecture. Two series. *Tract. 8vo. vol. 206.*
Lond. 1871. 8vo.
- Index of Publications on Methods of Communication in the
Field, and on Torpedo Warfare. *Lond.* 1889. 8vo.
- Kriegs-Telegraphie, etc. *Stuttgart*, 1879. 8vo.
- FISH, S. The Cairo Bridge. Report, etc.
[*Chicago*,] 1892. obl. folio.
- FISHBOURNE, E. G., *Admiral*. Lectures on Naval Architecture.
Lond. [1846.] 8vo.
- A Letter on the condition of the Ships of the Fleet. *Tract. 8vo.*
vol. 254. *Lond.* 1874. 8vo.
- A Letter to the Lords Commissioners of the Admiralty and to
the President of the Board of Trade [on Naval Architecture].
Tract. 8vo. vol. 387. *Lond.* 1884. 8vo.
- The Loss of H.M.S. "Captain." Illustrating a new principle of
Naval Architecture, etc. *Tract. 8vo. vol. 206.* *Lond.* 1870. 8vo.
- On the construction and stowage of Vessels of War.
[] 8vo.
- Our Ironclads and Merchant Ships. *Lond.* 1874. 8vo.
- Why Ships capsize: a letter to the Earl of Northbrook. *Tract.*
8vo. vol. 349. *Lond.* 1882. 8vo.
- FISHER, C. H., and JOHNSON, E. F. Reports to the Board of
Directors of the Lake Ontario Shore Railroad. *Tract. 8vo. vol. 186.*
Albany, 1868. 8vo.
- FISHER, J. The Importance of Milford Haven as a Naval and
Commercial Packet Station, particularly for departure to the
Transatlantic, Portuguese, and Brazilian Ports. *Tract. 8vo.*
vol. 524. *Waterford*, 1860. 8vo.
- FISHER, J. A. Railway Accounts and Finance. *Lond.* 1891. 8vo.
- Souvenir of the Royal Naval Review and Manœuvres, 1889.
Tract. 8vo. vol. 489. *Lond.* 1889. 8vo.
- FISHER, S. B. The Highways of the People. *Tract. 8vo. vol. 463.*
[*Pittsburg*,] 1883. 8vo.
- FISHERIES PRESERVATION ASSOCIATION. On the Pollution
of the Rivers of the Kingdom, etc. *Tract. 8vo. vol. 516.*
Lond. 1868. 8vo.
- FISHERY BOARD FOR SCOTLAND. See SCOTLAND [*Fishery*
Board.]

- FISKE, B. A. Electricity in theory and practice ; or, the elements of Electrical Engineering. *New York*, 1883. 8vo.
- FITCH, C. H. Report on Marine Engines and Steam Vessels in the United States Merchant Service. [*U.S.A. 10th Census. Vol. 22.*] *Washington*, 1888. 4to.
- Report on the Manufacture of Engines and Boilers, with a review of the principal types of Engines for manufacturing purposes. [*U.S.A. 10th Census. Vol. 22.*] *Washington*, 1888. 4to.
- Report on the Manufacture of Fire-Arms and Ammunition. *Tract. 4to. vol. 109.* *Washington*, 1882. 4to.
(Extra Census Bulletin, U.S.A.)
- Report on the Manufacture of Hardware, Cutlery, and Edge-Tools ; also, Saws and Files. [*U.S.A. 10th Census. Vol. 2.*] *Washington*, 1883. 4to.
- Report on the Manufactures of Interchangeable Mechanism. [*U.S.A. 10th Census. Vol. 2.*] *Washington*, 1883. 4to.
- FITCH, T. W. Bessemer Steel. Ores and Methods. *St. Louis*, 1882. 8vo.
- FITTON, W. H. Inquiries respecting the geological relations at the beds between the Chalk and the Purbeck Limestone in the south-east of England. *Lond.* 1833. 4to.
- FITZGERALD, D. Address as President of the Boston Society of Civil Engineers at their Annual Meeting. *Tract. 8vo. vol. 476.* [*Chicago.*] 1889. 8vo.
- Analysis of the Rainfall at Lake Cochituate, Mass., 1852–1883. *Tract. 8vo. vol. 368.* *Boston*, 1884. 8vo.
- Evaporation. [*New York.*] 1886. 8vo.
- Rainfall, Flow of Streams and Storage. *Tract. 8vo. vol. 527.* [*New York*, 1892.] 8vo.
- Yield of the Sudbury River watershed in the freshet of February 10th to 13th, 1886. *Tract. 8vo. vol. 527.* [*New York.*] 1891. 8vo.
- FITZGERALD, J. V. V. The Public Health and Local Government Act 1875, and the Statutes incorporated therewith, including the Law as to Election of Members of Local Boards as amended by the Corrupt Practices Act 1883, with short explanatory notes. 5th edition. *Lond.* 1886. 8vo.
- FITZGERALD, L. M. Labourers' Prize Cottages. *Tract. 4to. vol. 92.* *Cork*, 1883. 4to.
- FITZGERALD, M. [Reports on the Drainage and Improvement of Lands in various districts of Ireland.] *Dublin*, 1846–47. 8vo.
- FITZGERALD, M. F. Note to the Paper on the theory of the Screw Propeller, read before the Belfast Natural History and Philosophical Society, on March 4, 1890. *Tract. 8vo. vol. 493.* [*Belfast.*] 1890. 8vo.

FITZGERALD, P. The great Canal at Suez : its political, engineering, and financial history. 2 vols. *Lond.* 1876. 8vo.

FITZGERALD, R. D. Australian Orchids. 3 parts. *Sydney*, 1877. folio.

FITZGERALD, W. The Boston Machinist : being a complete school for the apprentice as well as the advanced machinist. With a treatise on screw and gear cutting. *New York*, 1868. 12mo.

FITZROY, *River, Queensland*. Report on Fitzroy River Improvements. *Brisbane*, 1877. folio.

— — Sir John Coode's Report. *Brisbane*, 1888. folio.

FITZROY, R., *Admiral*. Considerations on the great Isthmus of Central America. *Tract.* 8vo. vol. 96. [*Lond.* 1851.] 8vo.

— Great Circle Sailing. *Tract.* 8vo. vol. 431. [*Lond.* ? 1858.] 8vo.

— [Three numbers of meteorological papers of the Board of Trade.] *Lond.* 1857-58. 4to.

— The Weather-book : a manual of practical Meteorology. 2nd edition. *Lond.* 1863. 8vo.

FLACHAT, E. Address on taking the chair as President of the Society of Engineers of France. *Tract.* 8vo. vol. 178.

Paris, 1859. 8vo.

— De la traversée des Alpes par un chemin de fer. *Neuilly*, 1859. 8vo.

(From the *Mémoires de la Société des Ingénieurs civils*.)

— — Part 2. Développement. Étude du passage par le Simplon. *Paris*, 1860. 8vo.

— Isambard Brunel : Robert Stephenson. *Tract.* 8vo. vol. 127. *Neuilly*, 1859. 8vo.

— Navigation à vapeur transocéanique. 2 vols. (Atlas of plates.) *Paris*, 1866. 8vo.

— Système général de l'éducation professionnelle de l'ingénieur en France. *Tract.* 4to. vol. 111. *Paris*, 1868. 4to.

— Vues ... sur les travaux publics de France. 1832. See LAMÉ, G., CLAPEYRON, B. P. E., and FLACHAT, S. and E.

FLACHAT, E., BARBAULT, A., and PETIET, J. Traité de la fabrication de la fonte du fer envisagée sous les trois rapports chimique, mécanique et commercial. 3 vols. (Atlas of plates.) *Paris*, 1842-46. 4to. and folio.

FLACHAT, E., and PETIET, J. Calculs et tableaux sur l'avance du tiroir, les tuyaux d'échappement, les conduits de vapeur et de fumée dans les machines locomotives ; précédés d'une lettre à M. Arago. *Tract.* 8vo. vol. 62. *Paris*, 1839. 8vo.

— Guide du mécanicien-conducteur de machines locomotives, etc. *Paris*, 1840. 8vo.

- FLACHAT, S. Histoire des travaux et de l'aménagement des eaux du canal Calédonien. (Atlas of plates.)
Paris, 1828. 4to. and folio.
- L'Industrie. Exposition de 1834. Traité élémentaire de mécanique industrielle. Manuel et code des routes et des chemins vicinaux.
Paris, 1835. 8vo.
- Vues . . . sur les travaux publics de France. 1832. See LAMÉ, G., CLAPEYRON, B. P. E., and FLACHAT, S. and E.
- FLACHAT, S., and BAYARD DE LA VINGTÈRE, —. Canal maritime de Paris à Rouen. 2 vols.
Paris, 1829. 8vo.
- FLAGER, D. W. A history of the Rock Island Arsenal from . . . 1863 to . . . 1876.
Washington, 1877. 4to.
- FLAMACHE, A., and HUBERTI, A. Traité d'exploitation des chemins de fer.
Bruxelles, 1885, etc. 8vo.
- FLAMANT, A. Compte rendu des expériences hydrauliques faites à Roorkee par Captain A. Cunningham. *Tract.* 8vo. vol. 471.
Amiens, 1882. 8vo.
- Courbes représentatives des lois du choc longitudinal et du choc transversal d'une barre prismatique, dressées par feu de Saint-Venant. *Tract.* 4to. vol. 112.
Paris, 1889. 4to.
- Mécanique appliquée hydraulique.
Paris, 1891. 8vo.
(Encyclopédie des travaux publics fondée, par M.-C. Lechalas.)
- Plan incliné pour bateaux de navigation intérieure, etc. *Tract.* 8vo. vol. 521.
Paris, 1890. 8vo.
- Le pont du Forth, etc. *Tract.* 8vo. vol. 510. Paris, 1892. 8vo.
- Projet de chemin de fer métropolitain pour Paris, dressé par M. le Chatelier. *Tract.* 8vo. vol. 487. Paris, 1889. 8vo.
- Stabilité des constructions. Résistance des matériaux.
Paris, 1886. 8vo.
- FLANAGAN, T. Railways in Portugal: an account of the seizure by the Portuguese government of the works on the Central Peninsular Railway; with some words of advice to English speculators in foreign schemes.
Lond. 1855. 8vo.
- FLANNERY, J. F. The Transport of Petroleum in Bulk. [2nd Int. Mar. Congr.]
[Lond., 1893.] 8vo.
- FLATHER, J. J. Dynamometers and the Measurement of Powers . . . With a description of the methods and apparatus employed in measuring Water-power.
New York, 1892. 8vo.
- FLATTICH, W. Beschreibung von auf den Linien der Südbahn ausgeführten Hochbauten mit Angabe ihrer Kosten. *Tract.* 8vo. vol. 257.
Wien, 1870. 8vo.
- Der Eisenbahn-Hochbau in seiner Durchführung auf den Linien der K.K. Pr. Südbahn-Gesellschaft. (Atlas of plates.)
Wien, 1873-77. 8vo. and folio.

- FLEISCHER, E. Der Hydromotor. *Tract. 8vo. vol. 313.*
Kiel, 1879. 8vo.
- FLEMING, —. The Mahogany tree, etc., 1850. See CHALONER, E.,
 and FLEMING, —.
- FLEMING, C., and TIBBINS, J. Royal Dictionary, English and
 French, and French and English. 2 vols. *Paris, 1841–44. 4to.*
- FLEMING, H. Narrow Gauge Railways in America. *Tract. 8vo.*
vol. 257. Lancaster, Pa., 1875. 8vo.
- FLEMING, J. A. The Alternate Current Transformer in theory
 and practice. 2 vols. *Lond. 1889–93. 8vo.*
- Short Lectures to Electrical Artisans, etc. *Lond. 1886. 8vo.*
- FLEMING, S. An appeal to the Canadian Institute on the
 Rectification of Parliament, etc. *Toronto, 1892. 8vo.*
- Terrestrial Time. *Tract. 8vo. vol. 449. Lond. [1878?] 8vo.*
- The Intercolonial: a historical sketch of the inception, location,
 construction and completion of the line of railway uniting the
 inland and Atlantic provinces of the Dominion of Canada.
Montreal, 1876. 8vo.
- Papers on Time-Reckoning and the selection of a Prime Meridian
 to be common to all nations. *Tract. 8vo. vol. 331.*
[Toronto, 1880.] 8vo.
- Time-Reckoning for the twentieth century. *Tract. 8vo. vol. 518.*
Washington, 1889. 8vo.
- (From the Smithsonian Report.)
- [For Reports on Canadian Pacific Railway:] See CANADIAN
 PACIFIC RAILWAY.
- See GRANT, G. M. Ocean to Ocean. S. Fleming's Expedition
 through Canada, 1873.
- FLEMING, W. The Index to our Railway System and our leading
 lines. *Lond. 1877, etc. 8vo.*
- Railway Time-Table and Speed-Calculator, etc. 2nd edition.
Tract. 8vo. vol. 166. Dublin, [1868?] 8vo.
- FLETCHER, B. Arbitrations; a text-book for surveyors, in tabu-
 lated form. *Lond. 1875. 8vo.*
- Dilapidations: a text-book for architects and surveyors, in tabu-
 lated form. 3rd edition, etc. *Lond. 1883. 8vo.*
- Light and Air: a text-book for architects and surveyors.
Lond. 1886. 8vo.
- The Metropolitan Building Acts: a text-book for architects, sur-
 veyors, builders, etc. *Lond. 1882. 8vo.*
- Quantities: a text-book for surveyors, in tabulated form.
Lond. 1888. 8vo.
- FLETCHER, H. A. Archaeology of the West Cumberland Iron
 Trade. *Tract. 8vo. vol. 324. Kendal, 1880. 8vo.*

- FLETCHER, I. *Archæology of the West Cumberland Coal Trade.*
Tract. 8vo. vol. 298. Kendal, 1878. 8vo.
- FLETCHER, J. *A dreadful Phenomenon described and improved : being a particular account of the sudden stoppage of the river Severn, and of the terrible desolation that happened at the Birches between Coalbrook-dale and Buildwas bridge in Shropshire, on Thursday morning, May the 27th, 1773 ; and the substance of a sermon preached the next day on the ruins, to a vast concourse of spectators.*
Shrewsbury, 1773. 8vo.
- FLETCHER, L. E. *Description of the Landore Viaduct, on the . . . South Wales Railway.* *Tract. 8vo. vol. 499. Lond. 1856. 8vo.*
 (From Min. Proc. Inst. C.E.)
- *Engineer's Report to the coroner on the Bolton Boiler Explosion.*
Tract. 8vo. vol. 250. Manchester, 1874. 8vo.
- *Letter on a national system of Steam Boiler Inspection.* *Tract. 8vo. vol. 457. Manchester, 1870. 8vo.*
- *On the Lancashire Boiler, its construction, equipment and setting.*
1876. 8vo.
- *Wigan Coal Trials, 1867–68.* *Manchester, 1867–68. 8vo.*
- FLETCHER, W. *The abuse of the Steam Jacket practically considered.* *Tract. 8vo. vol. 287. Lond. 1878. 8vo.*
- FLETCHER, W. I., and BOWKER, R. R. *The Annual Literary Index, 1892 [etc.] : including periodicals . . . essays, book-chapters, etc.*
New York, 1893, etc. 8vo.
 (Succeeds to and includes the Cooperative Index to Periodicals.)
- *Poole's Index to Periodical Literature. 1888, etc. See POOLE, W. F., and FLETCHER, W. I.*
- FLEURY, J. *Respective uses of Water-ways and Railroads. [5th Int. Congr. Int. Nav.]*
[Paris, 1892.] 8vo.
- *Voies navigables et chemins de fer. 1887. See PONTZEN, E., and FLEURY, J.*
- FLIEGNER, A. *Aus- und Einströmen elastischer Flüssigkeiten bei variablen Preussungen.* *Tract. 8vo. vol. 249.*
Zürich, 1874. 8vo.
- *Die Uetlibergbahn.* *Tract. 4to. vol. 74. 1875. 4to.*
- FLINT, H. M. *The Railroads of the United States ; their history and statistics . . . To which are added a synopsis of the railroad laws of the United States, and an article on the comparative merits of Iron and Steel Rails.*
Philadelphia, 1868. 8vo.
- FLINT CANAL. *Act for the Construction of the Flint Canal.*
Lond. 1778. folio.
- FLOOD, E. S. *Observations upon the present position of the Waterford and Wexford Railway Company, and the best means of developing its traffic.* *Tract. 8vo. vol. 227. Dublin, 1873. 8vo.*

FLORENCE. Relazione della Commissione incaricata dello studio di un nuovo acquedotto fiorentino. [With map.]

Firenze, 1893. folio.

— *Collegio degli Architetti ed Ingegneri*. Atti. Vol. 2 (3, etc.).

Firenze, 1877, etc. 8vo.

FLOWER, L., *Major*. Marching out; a manual of Surveying and Field-sketching, etc.

Lond. 1859. 16mo.

— The River Lee: a paper read at the Parkes Museum, May, 19, 1887. *Tract*. 8vo. vol. 444.

Lond. 1887. 8vo.

— The River Lee "up to date": a paper read at the Parkes Museum, 1887, ... revised and brought up to date by the author. *Tract*. 8vo. vol. 516.

Lond. 1893. 8vo.

— Sewage Disposal: a précis of the report of a committee appointed by the President of the Local Government Board, etc. *Tract*. 8vo. vol. 275.

Lond. 1877. 8vo.

FLOWER, Sir W. H. On Whales, past and present, and their probable origin. *Tract*. 8vo. vol. 465.

Lond. 1883. 8vo.

— The Wings of Birds. *Tract*. 8vo. vol. 422.

Lond. 1886. 8vo.

FLOYER, E. A. Étude sur le Nord-Etbai entre le Nil et la Mer Rouge.

Le Caire, 1893. 8vo.

FLÜGEL, J. G. A complete Dictionary of the English and German Languages, etc. 3rd edition. 2 vols.

Leipsic, 1856. 8vo.

— A universal English-German and German-English Dictionary. Fourth, entirely remodelled, edition of J. G. Flügel's Dictionary ... Two parts in three vols.

Brunswick, 1891. 8vo.

FLYNN, P. J. Flow of Water in Open Channels, Pipes, Sewers, Conduits ... with Tables based on the formulæ of D'Arcy, Kutter and Bazin, etc.

New York, 1886. 8vo.

— Flow of Water in Open Channels, with Tables based on Kutter's Formula. *Tract*. 8vo. vol. 514.

[New York,] 1890. 8vo.

— Hydraulic Tables based on the formulæ of D'Arcy and Kutter. *Tract*, 8vo. vol. 415.

San Francisco, 1885. 8vo.

— Hydraulic Tables for the Calculation of the Discharge through Sewers, Pipes and Conduits; based on Kutter's Formula.

New York, 1883. 16mo.

— Irrigation Canals and other Irrigation Works: including the Flow of Water in Irrigation Canals and open and closed channels generally, etc.

San Francisco, 1892. 8vo.

— Shrinkage of Earthwork. *Tract*. 8vo. vol. 406.

San Francisco, 1885. 8vo.

FODEN, J. Boilermakers' and Iron Shipbuilders' Companion.

[Lond. 1869.] 8vo.

— Mechanical Tables. 4th edition.

[Lond. 1886?] 8vo.

FODOR, E. DE. Die elektrische Schweissung und Lothung.

Wien, 1892. 8vo.

- FODOR, J. von. Hygiene des Bodens: mit besonderer Rücksicht auf Epidemiologie und Bauwesen. [*Handbuch der Hygiene: herausgegeben von Dr. T. Weyl. Band I.*] Jena, 1893. 8vo.
- FOGERTY, J. Lauterdale: a story of two generations. 3 vols. Lond. 1873. 8vo.
- Vienna Girdle Railway and proposed Branches. Copies of plans, sections and documents. Lond. 1882. folio.
- FOGGO, G. Results of Parliamentary Inquiry relative to Arts and Manufactures. Tract. 8vo. vol. 19. Lond. 1837. 8vo.
- FOLEY, N. The Mechanical Engineer's Office Book. Boiler Construction. Lond. 1881. folio.
- The Mechanical Engineer's Reference Book for Machine and Boiler Construction. Lond. 1891. folio.
- FOLKESTONE. Promenade Pier and Pavilion at Folkestone. [Prospectus.] Tract. folio. vol. 42. [1887.] folio.
- FÖLSCH, A. Erinnerungen aus dem Leben eines Technikers. Hamburg, 1889. 8vo.
- Hamburger Stadtwasserkunst. Gutachten über das Project der Filtration. 1881. See GILL, H., and FÖLSCH, A.
- Die Stadt-Wasserkunst in Hamburg. Hamburg, 1851. 8vo.
- FÖLSCH, A., and HORNBOSTEL, C. Wien's Wasserversorgung. Wien, 1862. 4to.
- FOLSOM, C. F. Metropolitan Main Drainage: remarks before the joint Committee on improved sewerage. Tract. 8vo. vol. 297. Boston, U.S., 1876. 8vo.
- The Pollution of Streams, Disposal of Sewage, etc. Tract. 8vo. vol. 282. [Boston, U.S., 1877.] 8vo.
- The Present Aspect of the Sewage Question as applied to Boston. Tract. 8vo. vol. 297. Boston, U.S., 1877. 8vo.
- FONTAINE, A. J. B. Reservoirs of Water Supply [on the] Canal of the Centre and the Burgundy Canal. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.
- FONTAINE, H. Description des machines les plus remarquables et les plus nouvelles à l'Exposition de Vienne en 1873. (Atlas of plates.) Paris, 1874. 8vo. and folio.
- Éclairage à l'électricité: renseignements pratiques. Paris, 1877. 8vo.
- — 2^{me} édition. Paris, 1879. 8vo.
- Electric Lighting: a practical treatise. Translated from the French by Paget Higgs. Lond. 1878. 8vo.
- Électrolyse: renseignements pratiques sur le nickelage, la dorure, l'argenture, l'ainage des métaux et le traitement des minerais au moyen de l'électricité. Paris, 1885. 8vo.
- — 2^{me} édition. Paris, 1892. 8vo.

- FONTAINE, H.—*continued*. Electrolysis: a practical treatise on nickeling, coppering, gilding, silvering, the refining of metals and treatment of ores, by means of electricity. Translated from the French by A. Berly. *Lond.* 1885. 8vo.
- Exposition universelle de 1889. Éclairage électrique. Monographie des travaux exécutés par le Syndicat international des électriciens. *Paris*, 1890. 8vo.
- Transmissions électriques: renseignements pratiques. *Paris*, 1885. 8vo.
- FONTAINE, J. A. Exposé d'un nouveau système d'aérostats dirigés à propulsion atmosphérique. *Tract.* 4to. vol. 100. *Paris*, 1886. 4to.
- FONTAINE, W. M. Contributions to the knowledge of the older Mesozoic Flora of Virginia. [*U.S. Geological Survey*. Monograph VI.] *Washington*, 1883. 4to.
- The Potomac or younger Mesozoic Flora. [*U.S. Geological Survey*. Monograph XV.] *Washington*, 1889. 4to.
- FONTANA, C. Utilissimo trattato dell' acque correnti... nel quale si notificano le misure, ed esperienze di esse, i giuochi, e scherzi, li quale per mezzo dell' aria e del fuoco, vengono operati dall' acqua. *Roma*, 1696. folio.
- FONTANA, D. Contignationes, ac pontes Nicolai Zabaglia, etc. 1743. See ZABAGLIA, N., and FONTANA, D.
- FONTANE, M., and RIOU, F. Le canal maritime de Suez illustré, etc. *Tract.* folio. vol. 15. *Paris*, 1869. folio.
- FONTENAY, A. DE. Exposition universelle de 1875. Note sur les pièces de bronze phosphuré. 1878. See RUOLZ-MOUTCHAL, H. DE, and FONTENAY, A. DE.
- Note sur les combustibles employés pour le service de quelques chemins de fer français. *Tract.* 8vo. vol. 175. *Paris*, 1855. 8vo.
- FONTENAY, T. Construction des grands tunnels. *Tract.* folio. vol. 28. (Lithographed.) *Grenoble*, 1863. folio.
- Construction des viaducs, ponts-aqueducs, ponts, et ponceaux en maçonnerie. Description du viaduc de l'Indre et des procédés employés dans sa construction, etc. (Atlas of plates.) *Paris*, 1852. 8vo. and folio.
- FONVIELLE, H. DE. Filtrations publiques: réponse aux détracteurs. *Tract.* 4to. vol. 68. *Paris*, 1839. 4to.
- FOORD, G. A Lecture on Alchemy. *Tract.* 8vo. vol. 473. *Ballaarat*, 1882. 8vo.
- FOOTE, A. [For Reports by A. Foote as Borough Engineer of Oldham:] See OLDHAM.
- FOOTE, A. R. Economic Value of Electric Light and Power. *Cincinnati*, 1889. 8vo.

- FORBES, D. Report on the progress of the Iron and Steel Industries in foreign countries. *Tract. 8vo. vol. 255.*
Newcastle-on-Tyne, 1873. 8vo.
 (From the "Journal of the Iron and Steel Institute.")
- FORBES, E. On the Educational uses of Museums. *Tract. 8vo. vol. . Lond. 1853. 8vo.*
- On the Tertiary Fluvio-marine formation of the Isle of Wight. [*Memoirs of the Geological Survey.*] *Lond. 1856. 8vo.*
- The Relations of Natural History to Geology and the Arts. *Tract. 8vo. vol. 100. Lond. 1851. 8vo.*
- FORBES, F. The Improvement of Waste Lands, viz., wet, moory land, land near rivers, peat land, and propagating oak and other timber upon neglected and waste land. *Lond. 1778. 8vo.*
- FORBES, G. Cantor Lectures on Distribution of Electricity, etc. *Lond. 1885. 8vo.*
- Electric Lighting from Central Stations: a lecture, etc. *Tract. 8vo. vol. 479. Lond. 1887. 8vo.*
- The Electrical Transmission of Power from Niagara Falls. *Tract. 8vo. vol. 534. [Lond.] 1893. 8vo.*
- Experimental Determination of the Velocity of white and of coloured Light. 1882. See YOUNG, J., and FORBES, G.
- On the Relation which ought to subsist between the Strength of an Electric Current and the diameter of Conductors to prevent overheating. *Tract. 8vo. vol. 380. Lond. 1884. 8vo.*
- Radiation. [Science Lectures at South Kensington. Vol. 1.] *Lond. 1878. 8vo.*
- Thermal Conductivity and Thermo-Dynamics. [Science Lectures at South Kensington. Vol. 2.] *Lond. 1879. 8vo.*
- The Velocity of Light. [Science Lectures at South Kensington. Vol. 2.] *Lond. 1879. 8vo.*
- FORBES, J. Remarks on Lifeboats, and on the management of Ship Boats, with a proposition for a ship life boat; also, a description of a new method of lowering and raising ship boats. *Tract. 8vo. vol. 134. Hanley, [1855?] 8vo.*
- FORBES, J. D. Account of a remarkable Meteor, seen the 19th of December, 1849. *Tract. 8vo. vol. 193. [Edinburgh, 1849.] 8vo.*
 (From the "Proceedings of the Royal Society of Edinburgh.")
- Address to the British Association . . . delivered on the occasion of the opening of the fourth general meeting at Edinburgh. *Tract. 8vo. vol. 192. Edinburgh, 1834. 8vo.*
- Fourteenth (fifteenth) Letter on Glaciers. *Tract. 8vo. vol. 193. Edinburgh, 1847-48. 8vo.*
 (From the "Edinburgh New Philosophical Journal.")
- Occasional papers on the Theory of Glaciers, now first collected and chronologically arranged, etc. *8vo. Edinburgh, 1859. 8vo.*

FORBES, J. D.—*continued*. On the Alleged Evidence for a Physical Connection between Stars forming binary or multiple groups, deduced from the doctrine of chances; and from their proximity alone. *Tract. 8vo. vol. 188.* *Lond.* 1849–50. 8vo.

(From the "Philosophical Magazine.")

FORCHHEIMER, P. Die Eisenbahn von Ismid nach Angora. *Tract. 8vo. vol. 531.* *Berlin*, 1891. 8vo.

— Eiserne Wasser-, Oel- und Gasbehälter-Bassins nach den Berechnungen und Constructionen. *Tract. 8vo. vol. 375.*

München, 1884. 8vo.

— Englische Tunnelbauten bei Untergrundbahnen, sowie unter Flüssen und Meeresarmen. *Aachen*, 1884. 8vo.

— Grundzüge der städtischen Wasserversorgung. [Musterbuch der Actien-Gesellschaft Bergwerks-Verein Friedrich-Wilhelms-Hütte zu Mülheim.] *Düsseldorf*, 1893. 8vo.

— Neuere Bagger- und Erdgrabemaschinen. 1880. See SALOMON, B., and FORCHHEIMER, P.

— Ueber die Ergiebigkeit von Brunnen-Anlagen und Sickerschlitzten. *Tract. 8vo. vol. 430.* *Hannover*, 1886. 8vo.

— Ueber die Erwärmung des Wassers in Leitungen. *Tract. folio. vol. 42.* *Hannover*, 1888. folio.

— Ueber Sanddruck und Bewegungs-Erscheinungen im Inneren trockenen Sandes. *Aachen*, 1883. 8vo.

— Ueber Temperaturänderung von Metalldrähten während der Dehnung. *Tract. 4to. vol. 94.* *Aachen*, [1885.] 4to.

— Verfahren zur Berechnung von Schwimmdocks, etc. *Tract. 8vo. vol. 528.* *Berlin*, 1892. 8vo.

FORD, A. H. The Dwellings of the Poor, etc. *Tract. 8vo. vol. 281.* *Portsmouth*, [1877.] 8vo.

— Sewer Ventilation, etc. *Tract. 4to. vol. 111.* 1889. 8vo.

FORD, J. The Atlantic and Great Western reorganization Trustees in account with the New York, Pennsylvania and Ohio Railroad Company as representing the Atlantic and Great Western Railroad Company. *Tract. folio. vol. 44.* *Lond.* 1881. folio.

FORD, W. W., and RATHBONE, J. Practical Suggestions as to Instruction in Farming in Canada and the United States of America and Tasmania. 17th edition, revised. *Tract. 8vo. vol. 434.* *Lond.* 1887. 8vo.

FORDE, A. W. Railway Extension in India, with special reference to the export of Wheat. *Tract. 8vo. vol. 393.*

Bombay, 1884. 8vo.

FORDE, E. A Design for bringing a navigable River from Rickmansworth in Hertfordshire, to St. Giles's-in-the-fields, etc. *Tract. 8vo. vol. 5.* *Lond.* 1720. 8vo.

- FORDHAM, H. G. A Record of Water-Level in a deep Chalk Well at Barley, Herts, 1864-86. *Tract. 8vo. vol. 471.*
[Watford,] 1888. 8vo.
- A Record of Water-Level in a deep Chalk Well at Odsey Grange, Royston, 1878-1888. *Tract. 8vo. vol. 506.*
[Watford,] 1890. 8vo
- FORDYCE, D. G. Account of a new Pendulum. *Tract. 8vo. vol. 41.*
(From the Phil. Trans.) *Lond. 1794. 4to.*
- FORDYCE, W. A history of Coal, Coke, Coalfields . . . Iron, its ores, and processes of manufacture, etc. *Lond. 1860. folio.*
- FOREL, F. A. Le Léman : monographie limnologique. *Lausanne, 1892, etc. 8vo.*
- FOREST, H. Sifflet électro-automateur, etc. 1873. *See LARTIGUE, E., and FOREST, H.*
- FORESTIER, A. Mémoire sur la conservation des bois à la mer, au point de vue surtout de leur préservation contre les attaques du taret. (Atlas of plates.) *Tract. 4to. vol. 63.*
Paris, 1868. 8vo. and 4to.
- Préservation des bois contre les attaques du taret. Expériences faites au port des Sables d'Olonne, en Angleterre, en Belgique et en Hollande. (Lithographed.) [1866-67.] folio.
- FORFAR, *Burgh of.* Memorial by the Magistrates and Town-Councils of the Royal Burghs of Arbroath and Forfar, etc. 1824. *See ARBROATH, Burgh of.*
- FORLONG, J. G. R. Report on the Tounghoo Mountain Road, 1856. *See INDIA.—TOUNGHOO.*
- FORMANOIR, A. DE. Conférences militaires belges. Des chemins de fer en temps de guerre. 2^{me} édition augmentée. *Tract. 8vo. vol. 294.*
Bruxelles, 1871. 8vo.
- FORNEY, M. N. The Carbuilder's Dictionary, an illustrated vocabulary of terms, etc. *New York, 1879. 8vo.*
- — Revised and enlarged edition, to which has been added a vocabulary of the leading terms used in English railway carriage and wagon construction. *New York, 1888. 8vo.*
- Catechism of the Locomotive. *New York, 1875. 8vo.*
- Locomotives and Locomotive Building : being a brief sketch of the growth of the Railroad system and of the various improvements in Locomotive Building in America, together with a history of the origin and growth of the Rogers Locomotive and Machine Works, Paterson, N.J. *New York, 1886. 8vo.*
- Memoir of Horatio Allen. *Tract. 8vo. vol. 497.*
New York, [1890.] 8vo.
- FORREST, A. and C. Patent Concentrator, a mechanical Dryer of liquid, semi-liquid, pulp, paste, coagulation, or powder. *Tract. folio. vol. 29.*
Manchester, [1881.] folio.

- FORRESTER, J. J. The Oliveira Prize Essay on Portugal.
Lond. 1853. 8vo.
- FORROW, A. The Thames and its Docks : a lecture.
Lond. 1877. 8vo.
- FORSELLES, J. H. AF. Hydrauliska försök, *etc.* 1818–22. See
LAGERHJELM, P., FORSELLES, J. H. AF, and KALLSTENIUS, G. S.
- FORSHEY, C. G. Memoir on the Physics of the Mississippi river
and certain internal improvements in the state of Louisiana.
Tract. 8vo. vol. 135. *New Orleans*, 1850. 8vo.
- FORSTALL, T. Address delivered at the Eleventh Annual Meeting
of the American Gas Light Association, *etc.* *Tract.* 8vo. vol. 467.
New York, 1883. 8vo.
- FORSTER, A. South Australia : its progress and prosperity.
Lond. 1866. 8vo.
- FORSTER, M., COOPER, J. T., and JAMIESON, A. Reports on the
Coal Mines and Iron Ores in the Asturias in Spain. *Tract.* 8vo.
vol. 78. *Lond.* 1843. 8vo.
- FORSTER, T. J. M. Mémoire sur les étoiles filantes, ainsi que sur
les météores en général, par rapport à leurs causes déterminantes.
Tract. 8vo. vol. 188. *Bruges*, 1846. 8vo.
- FORSYTH, W. Reports on the construction and working of the
Barrages on the Seine, Marne, and Yonne, and their applicability
to the circumstances of the River Shannon, *etc.* *Tract.* 8vo.
vol. 252. *Dublin*, 1873. 8vo.
- [Reports on the Drainage and Improvement of Lands in various
districts of Ireland.] *Dublin*, 1846–51. 8vo.
- FORT PAYNE COAL AND IRON CO. Prospectus. *Tract.* 8vo.
vol. 489. *Boston*, 1888. 8vo.
- FORT ST. PHILIP CANAL. Reports upon Fort St. Philip Canal
and construction of Jetties for the improvement of the mouths of
the Mississippi. [*Engineer Dept. U.S.A.*] *Tract.* 8vo. vol. 237.
Washington, 1874. 8vo.
- FORTH, River. Reports of surveys made for ascertaining the practi-
cability of making a land communication by a tunnel under the
river Forth at or near Queensferry. *Tract.* 4to. vol. 86.
[*Edinburgh*,] 1806. 4to.
- FORTH AND CLYDE CANAL. An Act for empowering the
Proprietors . . . to repay the sum advanced to them for completing
the Navigation . . . and for enabling the Barons of the Court of
the Exchequer in Scotland to advance part of the sum so received
to the Proprietors of the Crinan Canal, *etc.* *Lond.* 1799. folio.
- Act for uniting the Forth and Clyde, and the Monkland Canal.
Lond. 1790. folio.
- An Act for varying and extending the Powers of the . . . Pro-
prietors, *etc.* *Lond.* 1787. folio.

- FORTH AND CLYDE CANAL**—*continued*. Acts to . . . amend the several Acts for making and maintaining the Forth and Clyde Canal. *Lond.* 1806, 14, 20. folio.
- Information, and Rules and Regulations for Traders, on the Forth and Clyde Canal Navigation. *Tract.* 8vo. vol. 98. *Glasgow*, 1820. 8vo.
- Remarks, submitted to the candid consideration of the inhabitants of Edinburgh, Glasgow, Leith, and other places interested in the success of an inland navigation between the Firths of Forth and Clyde, *etc.* *Tract.* 8vo. vol. 64. *Edinburgh*, 1814. 8vo.
- State of facts and observations, relative to the affairs of the Forth and Clyde Navigation submitted . . . to the consideration of the whole body of proprietors. *Tract.* folio. vol. 16. *Edinburgh*, 1816. folio.
- Observations . . . upon the answer by the Committee of Proprietors to the State of Facts submitted in January 1816. *Tract.* folio. vol. 16. [*Edinburgh*, 1816.] folio.
- Table of Tolls, and Regulations for ascertaining Tolls. *Tract.* 8vo. vol. 98. [*Glasgow*, 1821.] 8vo.
- Table of Abated Rates of Tolls. [*Glasgow*, 1822.] 8vo.
- FORTH BRIDGE.** First (–28th) Report of Inspection of the works, . . . by Maj.-Gen. Hutchinson and Maj. Marindin. *Lond.* 1883–90. folio.
- Forth Bridge Railway Bill, Minutes of Evidence. *Lond.* 1882. folio.
- FORTUNE, F.** Filth in the river Thames. *Tract.* 8vo. vol. 218. *Lond.* 1834. 8vo.
- London and Brighton Junction Railroad. *Tract.* 8vo. vol. 260. *Lond.* 1825. 8vo.
- Original sketches, *etc.*, for the improvement of Newhaven Harbour, and employing the bonding warehouses, *etc.* *Tract.* 8vo. vol. 13. *Lond.* 1825. 8vo.
- Proposals for raising a capital of £350,000 for forming a new street from Moorgate, to be called “New Mansion House Street.” *Tract.* folio. vol. 11. *Lond.* 1826. folio.
- FOSS CANAL.** Act for making a navigable Communication from the junction of the Rivers Foss and Ouse at York to Stillington Mill, *etc.* *Lond.* 1793. folio.
- Acts to . . . amend the Act [of 1793]. *Lond.* 1801. folio.
- FOSSETT, F.** Colorado : its gold and silver mines . . . and health and pleasure resorts. 2nd edition. *New York*, 1880. 8vo.
- FOSSICK, W. G.** Diagram showing the production of Iron in the United Kingdom, the Weight of Iron and Steel exported and the prices of typical descriptions of Iron, *etc.* *Tract.* folio. vol. 37. *Lond.* [1886.] folio.

- FOSSOMBRONI, V., *Count*. Considerazioni sopra il sistema idraulico dei paesi Veneti. *Firenze*, 1847. 8vo.
- FOSTER, C. Electrical Measurements. [Science Lectures at South Kensington. Vol. 1.] *Lond.* 1879. 8vo.
- FOSTER, C. LE N. Notes on Aberllefenny Slate Mine. *Tract.* 8vo. vol. 480. [Penzance, 1882.] 8vo.
(From the Trans. R. Geol. Soc. of Cornwall.)
- Notes on the Van Mine. *Tract.* 8vo. vol. 315. [Penzance, 1879.] 8vo.
(From Trans. R. Geol. Soc. of Cornwall.)
- On the Occurrence of Cobalt Ore in Flintshire. *Tract.* 8vo. vol. 338. [Penzance,] 1881. 8vo.
(From Trans. R. Geol. Soc. of Cornwall.)
- On the relative Dangers of coal and metal Mining in the United Kingdom. *Tract.* 8vo. vol. 406. *Lond.* 1885. 8vo.
- The Progress of the Art of Mining, etc. *Tract.* 8vo. vol. 525. *Lond.* 1891. 8vo.
- A Report on the Mining Industries of the British Colonies. *Tract.* 8vo. vol. 443. *Lond.* 1887. 8vo.
- FOSTER, C. LE N., and PIKE, W. Suggestions for the formation of a Miners' Permanent Club and Relief Society for Cornwall and Devon. *Tract.* 8vo. vol. 426. *Truro*, [1885?] 8vo.
- FOSTER, H. A. Central Station Management and Finance. *New York*, 1891. 8vo.
- FOSTER, J. Treatise on the Evaporation of Saccharine, chemical and other liquids by the Multiple System in vacuum and open air, etc. *Sunderland*, 1890. 8vo.
- FOSTER, J. G., *Lieut.-Col.* Design for an Improved Submarine Tunnel comprising a brick arch within a cast or wrought iron skin, laid in a trench dredged for that purpose. 1868. *Washington*, 1872. 4to.
- Submarine blasting in Boston Harbour. . . . Removal of Tower and Corwin rocks. *New York*, 1869. 4to.
- FOSTER, J. W. Mineral Wealth and Railroad development. *Tract.* 8vo. vol. 221. *New York*, 1872. 8vo.
- FOSTER, S. Elliptical or azimuthal Horologigraphy; comprehending severall wayes of describing dials upon all kinds of superficies, etc. [Edited by J. Twysden and E. Wingate.] *Lond.* 1654. 4to.
- FOTHERGILL, B. Description of the multifarious Perforating Machine, manufactured by Messrs. Roberts, Fothergill, and Dobinson, Manchester. *Tract.* 8vo. vol. 84. *Manchester*, 1848. 8vo.
(Read before the Inst. Mech. Engineers.)
- Report on the Coal and Coke burning Engines on the London and South-Western Railway. *Tract.* folio. vol. 6. 1856. folio.

- FOTHERGILL, B., SAMUELSON, and SMITH, *v.* The Ashbury Railway Carriage and Iron Company. [Summing up.] *Tract.* 8vo. vol. 138. *Lond.* 1864. 8vo.
- FOTHERGILL, J. R. Forced Draught. Read by request of the Council of the British Association, *etc.* *Tract.* 4to. vol. 111. [*Lond.*] 1886. 4to.
- Forced Draught: with Discussion. Read at the Twenty-ninth Session of the Institution of Naval Architects, *etc.* *Tract.* 4to. vol. 111. *Lond.* 1888. 8vo.
- FOULERTON, R. A letter to the Lords of the Admiralty on the Ship-manceuvrer; with opinions of naval officers, *etc.* *Tract.* 8vo. vol. 201. *Lond.* 1846. 8vo.
- FOULSTON, J. The Public Buildings erected in the West of England. *Lond.* 1838. 4to.
- FOURIER, J. B. J., *Baron.* Analyse des équations déterminées. Première partie. *Paris*, 1831. 4to.
- Analyse des travaux de l'Académie Royale des Sciences, pendant l'année 1828. *Tract.* 4to. vol. 6. [*Paris*, 1828.] 4to.
- The Analytical Theory of Heat. Translated... by A. Freeman. *Cambridge*, 1878. 8vo.
- FOURNEL, H. Aperçu du travail des hauts-fourneaux dans quelques États de l'Amérique du Nord, et de l'établissement de hauts-fourneaux dans l'Arkansas. *Tract.* 4to. vol. 68. *Paris*, 1840. 4to.
- Description of the Asphaltic Mine of the Val-de-Travers, in the Canton of Neuchâtel. With introductory observations by the Count de Sassenay. To which are appended, remarks on the works executed by the Seyssel and other Companies in Paris, and throughout France. By P. Muldoon. *Tract.* 8vo. vol. 495. *Lond.* 1838. 8vo.
- FOURNET, J. J. Notice historique sur la vie et les travaux de J. J. Fournet. *Tract.* 8vo. vol. 223. *Lyon*, 1870. 8vo.
- FOURNEYRON, B. Traité de la turbine Fourneyron. *Tract.* 8vo. vol. 274. *Paris*, 1850. 8vo.
- FOURNIÉ, F. L., and V. See REYNAUD L. Les travaux publics de la France. (Tom. 1. Routes et ponts. Par F. L. et V. Fournié.) 1883.
- FOURNIÉ, V. Résumé des expériences hydrauliques exécutées par le gouvernement américain sur le Mississippi. *Paris*, 1867. 4to.
- FOURNIÉ, V., and LISBOA, A. Melhoramento do porto de Pernambuco. *Tract.* 8vo. vol. 451. *Rio de Janeiro*, 1887. 8vo.
- FOURNIER, G. L'éclairage électrique dans les appartements, *etc.* 1889. See JUPPONT, P., and FOURNIER, G.
- La lumière électrique. *Paris*, 1885. 8vo.

- FOURNIER, G.—*continued*. Recueil général de tous les brevets d'invention ayant trait à l'électricité, pris en France depuis le 7 janvier 1791 jusqu'à ce jour. *Paris*, 1881. 8vo.
- Les sonneries électriques, installation et entretien. *Paris*, 1886. 8vo.
- Terminologie électrique. Vocabulaire français-anglais-allemand des termes employés en électricité. *Paris*, 1887. 8vo.
- FOVILLE, A. de. La transformation des moyens de transport et ses conséquences économiques et sociales. *Paris*, 1880. 8vo.
- FOWKE, F., *Capt., R.E.* Tables of the results of a series of experiments on British, Colonial and other Woods. *Lond.* 1867. 8vo.
- FOWLER, A. M. Borough of Salford. Ventilation of Sewers, Report of the Borough Engineer and Surveyor. *Tract.* 8vo. vol. 482. *Salford*, 1873. 8vo.
- Disposal of Town Refuse. *Tract.* 8vo. vol. 372. [*Manchester*,] 1884. 8vo.
- Pamphlet in support of Mr. A. M. Fowler's patent self-acting Water Closet. *Tract.* 8vo. vol. 236. *Manchester*, 1874. 8vo.
- Utilization of Sewage Water and water of polluted streams. *Tract.* 8vo. vol. 236. *Manchester*, 1874. 8vo.
- FOWLER, F. H. The Government of London. Discussion upon Resolutions proposed at the Lambeth Vestry, May 19th, 1870. *Tract.* 8vo. vol. 478. *Lond.* 1870. 8vo.
- FOWLER, G. On the Mode of Working and the mechanical appliances employed in the Midland Coal Field. *Tract.* 8vo. vol. 209. *Birmingham*, 1870. 8vo.
- (From Min. Proc. Inst. Mech. Eng.)
- Papers on the Theory and Practice of Coal Mining. *Lond.* 1870. 8vo.
- FOWLER, JOHN, and Co., of *Leeds*. [Steam Cultivation; Smith v. Fowler.] See HUTCHINSON, S.
- FOWLER, JOHN, and GREIG, D. On the application of Steam-power to Cultivation. *Tract.* 8vo. vol. 153. *Birmingham*, 1865. 8vo.
- (From Min. Proc. Inst. Mech. Eng.)
- FOWLER, Sir JOHN. Discours prononcé le 9 janvier 1866 par M. John Fowler, à son avènement à la présidence de l'Institut des Ingénieurs civils d'Angleterre. Précédé d'une notice biographique par M. Andriel. *Tract.* 8vo. vol. 167. *Paris*, 1867. 8vo.
- Report on the best width for the proposed narrow gauge Railways for India, and their applicability to the Indus valley. *Tract. folio.* vol. 15. *Lond.* 1870. folio.
- Soudan Railway. Report on the Proposed Railway between Wady Halfa and Shendy; and the ship incline at the First Cataract. January 1873. *Tract. folio.* vol. 48. *Lond.* 1873. folio.

- FOWLER, Sir JOHN—*continued*. The Suez canal: reprint of a letter from "The Times." *Tract. 8vo. vol. 173. Lond. 1869. 8vo.*
- FOWLER, Sir JOHN, and BAKER, Sir B. A Sweet-Water Canal through Egypt. *Tract. 8vo. vol. 357. Lond. 1884. 8vo.*
- FOWLER, Sir JOHN, and ORMSBY, A. S. Report upon the proposed Railway from Dortmund in Prussia to Enchede in Holland. *Tract. 8vo. vol. 157. Lond. 1866. 8vo.*
- FOWLER, JOHN C. Collieries and Colliers: a handbook of the law and leading cases relating thereto. 3rd edition. *Lond. 1872. 12mo.*
- FOWLER, T. A description of the patent Thermosiphon; with some modes of applying it to horticultural and other processes. *Tract. 8vo. vol. 58. Lond. 1829. 8vo.*
- FOWLER, W. H. Specification for a Lancashire Boiler, 7 feet 6 inches diameter, with plan of setting and mode of staying. *Tract. folio. vol. 42. Lond. 1888. folio.*
- See ANONYMOUS. The "Practical Engineer" Pocket Book . . . Edited [after 1892] by W. H. Fowler. 1891, etc.
- FOWNES, G. Rudimentary Chemistry for the use of beginners: to which is added, an essay on the application of Chemistry to Agriculture. *Lond. 1859. 8vo.*
- FOX and BARRETT. On the Construction of Public Buildings and private Dwelling-houses, on a Fire-proof principle without increase of cost. *Tract. 8vo. vol. 88. Lond. 1849. 8vo.*
- FOX, HEAD and Co. The co-operative scheme of Fox, Head and Co., Newport rolling-mills, Middlesbrough, being the report of a meeting, consisting of the above employers and their workmen, to hear the report of the public accountants upon the works of the year 1871–73. *Tract. 8vo. vols. 220, 229, 239. Middlesbrough, 1872–74. 8vo.*
- FOX, HENDERSON and Co. Remarks on the advantages of Chameroy's system of wrought-iron pipes for gas, water, and drainage, as compared with cast-iron pipes in point of economy, efficiency, and durability. *Tract. 8vo. vol. 83. Birmingham, 1849. 8vo.*
- FOX, Sir C. On the Size of Pins for connecting flat Links in the Chains of Suspension bridges. *Tract. 8vo. vol. 158. (From Proc. Royal Soc.) [Lond. 1865.] 8vo.*
- FOX, C. B. The Disposal of the Slop water of Villages. *Tract. 8vo. vol. 259. Lond. 1875. 8vo.*
- FOX, Sir D. Light and Temporary Railways. Lecture delivered at the School of Military Engineering, Chatham. *Tract. 8vo. vol. 428. Chatham, 1881. 8vo.*
- The Mersey Railway. *Tract. 8vo. vol. 356. Lond. 1883. 8vo.*

- FOX, J. J. A Letter to "an inhabitant of Stamford," exposing the futility of his remarks on a letter addressed to J. J. Oddy, Esq., and on the projected Harborough and Stamford Canal; with observations tending to demonstrate the superior eligibility of this canal, *etc.* *Tract.* 8vo. vol. 6. *Lond.* 1811. 8vo.
- FOX, R. The history of Godmanchester. *Lond.* 1831. 8vo.
- FOX, R. W. Description of Fox's Dipping-needle Deflector. *Tract.* 8vo. vol. 18. *Falmouth,* 1834. 8vo.
- Description of some improvements in the Dipping-needle Deflector, with a chart and table of the dip, and intensity of the terrestrial magnetism in some parts of England, Ireland, and Wales. *Tract.* 8vo. vol. 18. *Falmouth,* 1835. 8vo.
- FOX, W. H. Two papers on Continuous Railway Brakes, *etc.* *Lond.* 1872. 8vo.
- FOX-STRANGWAYS, C. The Jurassic Rocks of Britain. Vol. 1 and 2. Yorkshire. [Memoirs of the Geological Survey.] *Lond.* 1892. 8vo.
- FOXWELL, E., and FARRER, Sir T. C. Express Trains, English and Foreign, being a statistical account, *etc.* *Lond.* 1889. 8vo.
- FOYE, J. C. Handbook of Mineralogy: determination, description, and classification of minerals found in the United States. *New York,* 1886. 8vo.
- FRAISSE, W. Notice sur la correction du Rhin en Suisse. *Tract.* folio. vol. 30. *Lausanne,* 1868. folio.
- FRANÇAIS, J. F. Mémoire sur le mouvement de rotation d'un corps solide libre, autour de son centre de masse. *Tract.* 4to. vol. 69. *Paris,* 1813. 4to.
- FRANCE.—[*Agriculture.*] Ministère de l'Agriculture. Bulletin (Annexe). Direction de l'hydraulique agricole. *Paris,* 1885, *etc.* 8vo.
- [Artillery.] Expériences sur différentes espèces de projectiles creux faites dans les ports en 1829, 1831, et 1833. *Tract.* 8vo. vol. 214. *Paris,* 1837. 8vo.
- Mémorial de l'artillerie de la marine. Vol. 2, (3, *etc.*) (Atlases of plates). *Paris,* 1875, *etc.* 8vo. and folio.
- [Baths and Washhouses.] Bains et lavoirs publics. Commission instituée par ordre de M. le président de la République. *Tract.* 4to. vol. 59. *Paris,* 1859. 4to.
- [Beacons.] See *infra*: [*Lighthouses and Beacons.*]
- [Bridges and Roads.] Direction générale des ponts et chaussées et des mines. Situation des travaux. *Paris,* 1834. 4to.
- Tableau des principales dimensions de plusieurs ponts et viaducs. *Tract.* folio. vol. 18. [1870?] folio.
- [Canals.] See *infra*: [*Rivers and Canals.*]

- FRANCE—*continued.*—[*Coal.*] Question des houilles. Mission de M. de Ruolz en France et en Angleterre. 3 vols.
Paris, 1872–75. 8vo.
- [*Colonies.*] Tableau de population, de culture, de commerce, et de navigation, formant pour l'année 1870 la suite des tableaux insérés dans les notices statistiques sur les colonies françaises. *Tract.* 8vo. vol. 239. Paris, 1874. 8vo.
- [*Customs.*] Nouveaux code et tarifs des douanes et de navigation ; avec un supplément toujours au courant. *Tract.* 4to. vol. 14. Paris, [1804 ?] 4to.
- Le régime douanier en 1860. 2 pt. *Tract.* 8vo. vols. 174 and 176. Paris, 1860. 8vo.
- (A series of articles from the "Moniteur Industriel.")
- [*Dépôt général de la guerre.*] Mémorial, 1802–77.
(Imperfect: wanting vol. 8.) Paris, 1826–77. 4to.
- [*Drainage.*] Instructions pratiques sur le drainage, réunies par ordre du Ministre de l'agriculture, du commerce et des travaux publics. *Tract.* 8vo. vol. 392. Paris, 1865. 12mo.
- [*Dynamite.*] Rapport de la commission des dépôts de dynamite. *Tract.* 8vo. vol. 343. Alais, 1882. 8vo.
- [*Education.*] Commission de l'enseignement technique. Rapport et notes. Paris, 1865. 4to.
- [*Electricity.*] Carte et statistique des stations centrales de distribution d'énergie électrique établies en France au 1^{er} janvier 1894. 4^{me} édition. *Tract.* 4to. vol. 121. Paris, 1894. 4to.
- [*Geology.*] Carte géologique de la France à l'échelle de million-ième. Paris, [] 8vo.
- [*Hydrology.*] Résumé des observations centralisées, par le service hydrométrique du bassin de la Seine pendant les années 1871 et 1872 (1873, etc.). [Atlases of plates.] Versailles, 1873, etc. 8vo. and folio.
- [*Lighthouses and Beacons.*] Cartes des phares des côtes de France. Paris, 1855. 8vo.
- Catalogue des appareils d'éclairage et autres objets exposés au Musée des Phares. *Tract.* 8vo. vol. 424. Paris, 1878. 8vo.
- État de l'éclairage et du balisage des côtes de France. 2 vols. Paris, 1876–82. 8vo.
- Mémoire sur l'intensité et la portée des phares, par M. E. Allard. Paris, 1876. 4to.
- Phares des mers du globe. 1886. 8vo.
- Série A. Phares des côtes nord d'Europe et de la mer Baltique.
Série B. Phares des îles Britanniques.
Série C. Phares des côtes nord-ouest de France et des côtes ouest d'Espagne et de Portugal.
Série D. Phares de la Méditerranée, de la mer Noire et de la mer d'Azof.
Série E. Phares des côtes orientales de l'Amérique du Nord.
Série F. Phares du Mexique et de la mer des Antilles.

FRANCE.—[*Lighthouses and Beacons.*] Phares des mers du globe
—continued.

Série G. Phares des côtes occidentales d'Afrique et des îles éparses de l'Océan Atlantique.

Série H. Phares des côtes orientales de l'Amérique du Sud.

Série K. Phares des mers des Indes et de la Chine.

Série L. Phares du grand Océan, îles éparses et côtes occidentales d'Amérique.

— Phares électriques : rapport de la Commission nautique spéciale, etc. *Tract. 4to. vol.* 105. [Paris,] 1886. 4to.

— Phares et balises. Instruction pour le service des phares électriques de la Hère. *Havre*, 1866. 4to.

— See CHICAGO.—*Exposition of 1893.* Notice sur les appareils d'éclairage... exposés par la Service des Phares, 1893.

— [*Limes, Cements and Mortars.*] Commission des chaux, ciments et mortiers : documents lus à la séance du 17 juillet, 1890. Fasc. 3. Paris, 1890. folio.

— [*Mails.*] Du transport des correspondances entre la France et l'Angleterre. Examen des travaux de la Commission. *Boulogne-sur-Mer*, 1851. 8vo.

— [*Mines.*] Comptes rendus des travaux des ingénieurs des mines pendant l'année 1834. Paris, 1835. 4to.

— Résumé des travaux statistiques de l'administration des mines. 1865-69. Paris, 1874. 4to.

— [*Navigation.*] Atlas des ports étrangers. Paris, 1886. 4to.

— [*Pilote français : Charts of the Coasts of France.*] 3 vols. Paris, 1802-46. folio.

— Recherches hydrographiques sur le régime des côtes. Premier (deuxième) cahier. Paris, 1874, 77. 4to.

— [*Navigation, inland.*] See *infra*: [*Rivers and Canals.*]

— [*Navy.*] Comptes-rendus sommaires des principales expériences effectuées par les soins du Département de la Marine de 1864 à 1876. Paris, 1864-1876. 8vo.

— [*Pontoons.*] Règlement sur le service et les manœuvres des pontonniers. (Atlas of plates.) Paris, 1878. 8vo.

— [*Ports and Harbours.*] Plans des principaux ports de France, tous réduits sur la même échelle. [1795?] 4to.

— Les ports maritimes de la France. (Atlases of plates.) Paris, 1874, etc. 8vo.

— Travaux maritimes du Département de la Seine inférieure. [Drawings of details of construction.] [1795?] 4to.

— [*Public Works.*] Annuaire du Ministère de l'agriculture du commerce et des travaux publics pour 1866 (1869). Paris, 1866-69. 8vo.

— Bulletin du Ministère des travaux publics. Vol. 1, (2, etc.) Paris, 1880, etc. 8vo.

- FRANCE—*continued.*—[*Railways.*] Chemins de fer. Conditions techniques d'établissement. *Paris*, 1865. 4to.
- Chemins de fer français. État général des concessions. 1874–75. *Paris*, 1875–76. 4to.
- Chemins de fer français. Situation au 31 décembre 1878 (longueurs et territoire desservi). *Paris*, 1879. 4to.
- Direction des chemins de fer. 3^{me} division (exploitation). Commission chargée d'étudier les mesures à prendre pour assurer aux voyageurs en chemins de fer de nouvelles garanties de protection et de sécurité. *Paris*, 1886. folio.
- Documents financiers. [1823–65.] *Paris*, 1868. 4to.
- Documents relatifs à la construction et à l'exploitation des chemins de fer. *Paris*, 1872. 4to.
- Documents statistiques relatifs à l'année 1876, (1877, etc.) *Paris*, 1879, etc. 4to.
- Enquête sur les moyens d'assurer la régularité et la sûreté de l'exploitation sur les chemins de fer. *Paris*, 1858. 4to.
- Enquête sur les moyens de prévenir les accidents de chemins de fer. Questionnaire. *Tract. folio. vol. 36.* [1879.] folio.
- Enquête sur les moyens de prévenir les accidents de chemins de fer. 1879–1880. *Paris*, 1882. 4to.
- Enquête sur l'exploitation et la construction des chemins de fer. *Paris*, 1862. 4to.
- Exploitation. Matériel roulant. 1869–75. *Paris*, 1877. 4to.
- Exploitation. (Personnel.) 1869–1875. *Paris*, 1876. 4to.
- Exploitation. Prix du transport sur un kilomètre. *Paris*, 1873–75. 4to.
- Exploitation. Recettes, dépenses et produit net (y compris les annexes). 1869 à 1875. *Paris*, 1877. 4to.
- Exploitation. Relevé des intérêts et dividendes attribués aux actions. 1859–75. *Paris*, 1876. 4to.
- Instruction spéciale pour le transport des troupes d'infanterie par les voies ferrées. *Paris*, 1878. 12mo.
- Loi et règlements relatifs aux chemins de fer d'intérêt local et aux tramways. *Paris*, 1881. 8vo.
- Mouvement des voyageurs et des marchandises dans les gares de Paris. *Paris*, 1873–75. 4to.
- Profits particuliers que l'État retire de l'exécution des chemins de fer. 1873–74. *Paris*, 1873–74. 4to.
- Répertoire méthodique de la législation des chemins de fer. *Paris*, 1873. 4to.
- Résultats d'exploitation. (Voyageurs et marchandises.) *Paris*, 1873–75. 4to.

- FRANCE.—[*Railways.*]*—continued.* Résultats généraux de l'exploitation (avec le détail des compagnies secondaires). 1874, 75.
Paris, 1875, 76. 4to.
- Résultats généraux de l'exploitation des chemins de fer européens. 1862-69. Paris, 1869-76. 4to.
- Résultats généraux de l'exploitation des compagnies principales. 1869 à 1875. Paris, 1876. 4to.
- Résultats généraux de l'exploitation (y compris les annexes), 1845 à 1875. Paris, 1876. 4to.
- Résumé par ligne des dépenses de premier établissement et des résultats de l'exploitation des six compagnies principales. Paris, 1872. 4to.
- Statistique centrale des chemins de fer 1864, (1866-69, 71-75, 77.) Paris, 1864-78. 4to.
- Tarifs de transit et d'exportation appliqués par les compagnies de chemins de fer. 1873, 75. Paris, 1873, 75. 4to.
- [*Rivers and Canals.*] Guide officiel de la navigation intérieure, avec itinéraires graphiques des principales lignes de navigation et carte générale des voies navigables de France. 3^{me} édition. Paris, 1888. 8vo.
- — 4^{me} édition. Paris, 1889. 8vo.
- Rapport au Roi sur la navigation intérieure de la France. (Ministère de l'intérieur.) Tract. 4to. vol. 8. Paris, 1820. 4to.
- Rapport au Roi, sur la situation des canaux, au 31 mars, 1823. (Ministère de l'intérieur.) Tract. 4to. vol. 8. Paris, 1823. 4to.
- Statistique de la navigation intérieure. Dépenses de premier établissement et d'entretien concernant les fleuves, rivières et canaux : documents historiques et statistiques. Paris, 1888. 4to.
- Statistique de la navigation intérieure. Nomenclature et conditions de navigabilité des fleuves, rivières et canaux. Relevé générale du tonnage des marchandises, 1887-88. Paris, 1888-89. 4to.
- [*Roads.*] Documents statistiques sur les routes et ponts. Paris, 1873. 4to.
- Routes nationales. Détermination directe de la qualité des matériaux d'entretien. Tract. 4to. vol. 89. Paris, 1880. 4to.
- — See also : [*Bridges and Roads.*]
- [*Ship Building.*] Report of the commission charged to make experiments on the marine glue, at the port of Toulon. Translated from the French. Tract. 8vo. vol. 219. Lond. 1845. 8vo.
- [*Statistics.*] Description topographique et statistique de la France ; département de la Côte d'Or. Tract. 4to. vol. 38. [1810?] 4to.

FRANCE.—[*Statistics.*—*continued.* Progrès de la France sous le gouvernement Impérial d'après les documents officiels.

Paris, 1869. folio.

— [*Survey.*] Nivellement général de la France. Réseau fondamental: répertoire graphique, définissant les emplacements et altitudes des repères, etc. 2 vols. *Paris*, 1889–91. 4to

— Nivellement général de la France. Résultats des opérations exécutées pour l'établissement du réseau des lignes de base. 3 vols. *Bourges*, 1864. 8vo.

— [*Transport.*] Rapports au nom de la Commission des enquêtes sur les moyens de transports. [*Railways and Canals.*] Par M. Krantz. *Paris*, 1872–1874. 4to.

— [*Water Filtration.*] Rapport de la commission supérieure de la marine, chargée des expériences de filtrage à bord de la frégate la Thétis. *Tract.* 8vo. vol. 219. *Toulon*, 1839. 8vo.

FRANCE, R. S. Lord Redesdale and the new Railways: a review of his Lordship as a railway legislator. *Tract.* 8vo. vol. 179.

Lond. 1867. 8vo.

FRANCHIMONT, H. C. DE. Construction and Working of the Dock of the Port of Bordeaux. [*2nd Int. Mar. Congr.*]

[*Lond.* 1893.] 8vo.

FRANCHINI, P. Mémoire sur l'intégration des équations différentielles. *Tract.* 4to. vol. 77. *Paris*, 1799. 4to.

FRANCIS, G. Electrical Experiments. *Lond.* 1848. 8vo.

FRANCIS, G. GRANT-, Col. See GRANT-FRANCIS, G.

FRANCIS, JAMES B. Experiments on the Humphrey Turbine Water Wheel at the Tremont and Suffolk Mills, in Lowell, Mass. Experiments on the Flow of Water over Submerged Weirs. *Tract.* 8vo. vol. 456. [*New York,*] 1884. 8vo.

— High Walls or Dams to resist the pressure of Water. *Tract.* 8vo. vol. 477. [*New York,*] 1888. 8vo.

— Lowell Hydraulic Experiments, being a selection from experiments on Hydraulic Motors, on the flow of Water over Weirs, and in Canals of uniform rectangular section and of short length, made at Lowell, Massachusetts. *Boston*, 1855. 4to.

— — 2nd edition, revised and enlarged. *New York*, 1868. 4to.

— — 3rd edition. *New York*, 1871. 4to.

— — 4th edition. *New York*, 1883. 4to.

— On the effect of a rapidly increasing supply of water to a Stream on the Flow below the point of Supply. With discussion. *Tract.* 8vo. vol. 514. [*New York,*] 1889. 8vo.

— Tables for facilitating the computation of the quantity of Water flowing over Weirs. *Tract.* 4to. vol. 69. [1872?] 4to.

FRANCIS, JAMES B., CLARKE, E. C., and HERSCHEL, C. A Report on the Prevention of Floods in the Valley of Stony Brook. *Tract.* 8vo. vol. 418. *Boston*, 1886. 8vo.

FRANCIS, JOHN. A History of the English Railway; its social relations and revelations, 1820-1845. 2 vols. *Lond.* 1851. 8vo.

FRANCIS, JOSEPH. Brevets Francis. Métal cannelé par compression ... pour bateaux de sauvetage. *Tract.* 8vo. vol. 391.

Paris, 1856. 8vo.

— Francis' Metallic Life Boat Corporation. Communications to be addressed to the superintendent or treasurer ... 2nd edition. *Tract.* 8vo. vol. 374. *New York*, 1853. 8vo.

FRANCKE, A. Mathematische Grundlagen der Wirthschaftslehre. *Tract.* 8vo. vol. 513. *Berlin*, 1892. 8vo.

FRANCŒUR, L. B. Cours complet de mathématiques pures. 2 vols. *Paris*, 1809. 8vo.

— Lineal Drawing, and introduction to geometry, as taught in the Lancastrian schools of France. 2nd edition. *Lond.* 1835. 8vo.

— Traité élémentaire de mécanique. 3^{me} édition.

Paris, 1804. 4to.

— — 5^{me} édition.

Paris, 1825. 8vo.

— Uranographie ou traité élémentaire d'astronomie, à l'usage des personnes peu versées dans les mathématiques. 2^{me} édition.

Paris, 1818. 8vo.

FRANÇOIS, J. La science des eaux, etc. *Rennes*, 1663. 4to.

FRANÇOIS-DE-CHAUMONT, F. S. B., *Surg.-Maj.* Extract from official reports on a series of comparative trials of Water Filtration at the Army Medical School. *Tract.* 8vo. vol. 326.

Lond. 1880. 8vo.

FRANÇQ, L. Chemin de fer métropolitain de Paris. *Tract.* 8vo. vol. 470. *Paris*, 1883. 8vo.

— Exposition Universelle de 1889. Mémoire présenté à MM. les membres du jury de la classe 61. (Locomotives sans foyer.) *Tract.* 4to. vol. 119. *Paris*, 1889. 4to.

— La locomotive sans foyer : étude comparative des divers systèmes de locomotive proposés pour la traction des chemins de fer vicinaux et des tramways. *Paris*, [1876.] 8vo.

FRANÇQ, L., and LAMM, E. Traction et moteurs à vapeur sans feu. *Tract.* 4to. vol. 119. *Paris*, 1889. 4to.

FRANK, A. Berechnung der Kanäle und Rohrleitungen.

München, 1886. 8vo.

— Die Widerstände der Locomotiven und Bahnzüge, der Wasser- und Kohlenverbrauch, sowie der Effect der Locomotiven. *Tract.* 8vo. vol. 416. *Wiesbaden*, 1886. 8vo.

FRÄNKEL, W. Der Durchbiegungszeichner und seine Anwendung allein und in Verbindung mit dem Dehnungszeichner. *Tract.* 4to. vol. 93. [Leipzig,] 1884. 4to.

— Ueber einige Versuche mit dem "Dehnungszeichner." *Tract.* 4to. vol. 109. *Leipzig*, 1883. 4to.

FRÄNKEL, W., and KRÜGER, M. Spannungs- und Formänderungs-Messungen an dem eisernen Pendelpfeiler-Viaducte über das Oschützthal bei Weida. *Tract. 4to. vol. 107.*

[Leipzig,] 1887. 4to.

FRANKFORT, on Main. Bau-Amt zu Frankfurt am Main. Bedingungen unter welchen die Entwässerung der Gebäulichkeiten, Höfe, Garten, etc., in die neuen Canäle gestattet wird. [W. Lindley and J. Gordon, Engineers.] *Tract. folio. vol. 14.*

Frankfurt a. M., 1872. folio.

— Handelskammer zu Frankfurt am Main. Jahres-Bericht für 1888. *Frankfurt a. M., 1889. 8vo.*

FRANKFURTER ARCHITEKTEN- UND INGENIEUR-VEREIN. Frankfurt am Main und seine Bauten.

Frankfurt, 1886. 8vo.

FRANKLAND, E. An Examination of the figures and statements published as the result of the Analyses of Professor Frankland on the London Water Supply in 1876-77. By O. *Tract. 8vo. vol. 296.*

Lond. 1878. 8vo.

— Experimental Researches in pure, applied, and physical Chemistry. *Lond. 1877. 8vo.*

— Report on communication from Dr. Letheby, with reference to the quantity of Arsenic in Perchloride of Iron. 1860. *See* HOFMANN, A. W., and FRANKLAND, E.

— Water Analysis for Sanitary Purposes, with hints for the interpretation of results. *Lond. 1880. 8vo.*

FRANKLAND, P. F. The Present State of our Knowledge concerning the Self-Purification of Rivers. [*Lond. 1891.*] folio.

FRANKLIN INSTITUTE. Catalogue of the Library. (Appendix.) *Tract. 8vo. vol. 386.*

Philadelphia, 1851. 8vo.

— Journal. New series: edited by Dr. T. P. Jones. 26 vols. *Philadelphia, 1828-40. 8vo.*

— — Third series: edited by Dr. T. P. Jones and others. *Philadelphia, 1841, etc. 8vo.*

(The title has undergone several unimportant alterations, and is now "Journal of the Franklin Institute of the State of Pennsylvania for the Promotion of the Mechanic Arts," &c.)

— Official Catalogue of the International Electrical Exhibition at the Franklin Institute. *Tract. 8vo. vol. 380.*

Philadelphia, 1884. 8vo.

— Report of the Committee on Explosions of Steam Boilers. *Philadelphia, 1836-37. 8vo.*

— Report of the Committee on Science and the Arts on the Cowper-Robertson Writing Telegraph. *Tract. 4to. vol. 114.*

Philadelphia, 1889. 4to.

— Report of the Managers . . . in relation to Weights and Measures. *Tract. 8vo. vol. 172.*

Philadelphia, 1834. 8vo.

- FRANKLIN INSTITUTE—*continued*. Subject Catalogue of the Memorial Library of the International Electrical Exhibition. *Tract. 8vo. vol. 380. Philadelphia, 1884. 8vo.*
- Supplement to the Journal, May 1892. Containing the Report ... on the Compound Locomotive of the Rhode Island Locomotive Works. *Philadelphia, 1892. 8vo.*
- FRANKLIN, BENJAMIN. Works in Philosophy, Politics, and Morals; with memoirs of his early life, written by himself. 2nd edition. 3 vols. *London, 1806. 8vo.*
- Experiments and Observations on Electricity, made at Philadelphia, U.S., with letters and papers on philosophical subjects. *London, 1769. 4to.*
- FRANKLIN, P. Lectures on the collection, storage... and examination of Water. 1886. See BOLTON, Sir F., and FRANKLIN, P.
- FRANKLIN, W. B. The Gatling Gun, for service ashore and afloat. *Tract. 4to. vol. 105. Hartford, 1874. 4to.*
- FRANKLYN, H. M. The Victorian Railways and their management. *Tract. 8vo. vol. [Melbourne,] 1879. 8vo.*
- FRANQUET Y BERTRAM, C. Ensayo sobre el origen espíritu y progresos de la legislación de las aguas, seguido de los elementos de hidronomía pública. 2 vols. *Madrid, 1864. 8vo.*
- FRANQUEVILLE, C. DE. Du régime des travaux publics en Angleterre. 2^{me} édition. 4 vols. *Paris, 1875. 8vo.*
- L'État et les chemins de fer en Angleterre. Lettre adressée à M. le Président, etc. *Tract. 8vo. vol. 317. Paris, 1880. 8vo.*
- FRANQUOY, J. De la fabrication des combustibles agglomérés ou briquettes de charbon pour les usages industrielles. Étude sur les usines d'agglomération du bassin de Charleroi. *Liège, 1861. 8vo.*
- Des progrès de la fabrication du fer dans le pays de Liège. *Liège, 1861. 8vo.*
- FRANZIUS, L. Improvement of Tidal Rivers, including their estuaries. [5th Int. Congr. Int. Nav.] [Paris, 1892.] *8vo.*
- Die Korrektion der Unterweser. *Bremen, 1888. 8vo.*
- Neue Hafen-Anlagen zu Bremen eröffnet im Jahre 1888. *Hannover, 1888. folio.*
- Projekt zur Correction der Unterweser 1882. See GERCKE, O., NIENBURG, W., and FRANZIUS, L.
- Der Wasserbau. Mit einem Anhang, betr.: Wildbach-Vorbauungen und Regulirungen von Gebirgsflüssen, sowie Ent- und Bewässerung von Landereien, bearbeitet von W. Frauenholz. [Handbuch der Baukunde. Abth. III.] *Berlin, 1890. 8vo.*
- FRASER, A., Col., and ORMISTON, T. Deep water Berthage for Ships and steamers at Bombay. *Tract. folio. vol. 14. Bombay, 1872. folio.*

- FRASER, A. T., *Col.* Darkness in the land of Egypt; an indication to antiquity of the prevalence of light and heat throughout the universe. 2nd edition. *Tract.* 8vo. vol. 414.
Guildford, 1885. 8vo.
- Land Improvement in India, on engineering and agricultural principles. *Tract.* 8vo. vol. 514. Bombay, 1892. 8vo.
- FRASER, JAMES. [Reports on Drainage and Improvement of Lands in various districts of Ireland.] Dublin, 1847. 8vo.
See also FARMER, J., and FRASER, J.
- FRASER, JAMES, *M. Inst. C.E.* Descriptive notes on the stone circles of Strathnairn and neighbourhood of Inverness. *Tract.* 8vo. vol. 390. [Edinburgh,] 1885. 8vo.
- See INVEENESS. Report on Water Power, etc. [By F. Nell and J. Fraser.] 1892.
- FRASER, M. A. C. Western Australian Year-Book for 1890. Perth, 1891. 8vo.
- FRASER, S. A dissertation upon the High Roads of the Duchy of Lorraine. *Tract.* 8vo. vol. 316. Lond. 1729. 8vo.
- FRASER, T., *Capt., R.E.* The Attack of Fortresses in the future. Being the Royal Engineer prize essay in 1876. Lond. 1877. 8vo.
- The Defence of a Position selected as a field of battle. *Tract.* 8vo. vol. 266. Woolwich, 1875. 8vo.
- Lectures on the Blasting of Chalk Rock by Gunpowder. *Tract.* 8vo. vol. 243. Chatham, 1864. 8vo.
- Lectures on the principles of Mechanics. *Tract.* 8vo. vol. 243. Chatham, 1863. 8vo.
- FRASER, W. [Reports on the Drainage and Improvements of Lands in various districts of Ireland.] Dublin, 1844–51. 8vo.
- Report on Madras Waterworks. 1866. See INDIA—MADRAS.
- FRASER-MACDONALD, A. Our Ocean Railways: or, the rise, progress and development of ocean steam navigation, etc. Lond. 1893. 8vo.
- FRAUNHOFER, J. von. Gesammelte Schriften. München, 1888. 4to.
- FRAUENHOLZ, W. See FRANZIUS, L. Der Wasserbau. Mit einem Anhang, betr. Wildbach-Vorbauungen und Regulirungen von Gebirgsflüssen . . . bearbeitet von W. Frauenholz. 1890.
- FRAZER, G. A. Sailing Directions for the . . . North Coasts of Ireland. 1842. See MADGE, W., *Commander, R.N.*, and FRAZER, G. A.
- FRAZER, W. [Report to the Cardiff Union Rural Sanitary Authority on the Pollution of the rivers Rhymney, Taff and Ely.] *Tract.* 8vo. vol. 494. Cardiff, 1890. 8vo.

- FRAZER'S ISLAND**, *Queensland*. Timber, etc., on Frazer's Island. Report of Curator of Botanic Gardens. *Brisbane*, 1879. folio.
- FRÉART DE CHAMBRAY**, R. See EVELYN, J. Parallel of Ancient Architecture with Modern . . . From the French of R. Fréart, etc. 1664.
- FREELAND**, H. W. The Prussians in North Schleswig; miscellaneous papers relating to their occupation. *Tract. 8vo. vol. 178.*
Lond. [1867.] 8vo.
- FREELING**, A. Freeling's Grand Junction Railway Companion to Liverpool, Manchester, and Birmingham, etc. *Lond.* 1838. 12mo.
- The Grand Junction Railway Companion to Liverpool, Manchester, and Birmingham; and Liverpool, Manchester, and Birmingham Guide. *Liverpool*, 1837. 12mo.
- The Great Western Railway Companion, and Guide to the Castle and Town of Windsor, Eton . . and Virginia Water. Also a Guide to . . . Reading, . . . with a plan, etc. *Lond.* 1840. 12mo.
- The London and Southampton Railway Companion . . . With guides to Southampton and the Isle of Wight, etc.
Lond. 1839. 12mo.
- The Railway Companion from London to Birmingham, Liverpool, and Manchester, etc. *Lond.* [1837?] 12mo.
- FREEMAN**, J. The Dispute in the Iron Trade. *Tract. 8vo. vol. 174.*
Lond. 1864. 8vo.
- FREEMAN**, J. R. The arrangement of Hydrants and Water-pipes for the protection of a city against fire, etc. *Tract. 8vo. vol. 514.*
New London, Conn., 1892. 8vo.
- Experiments relating to Hydraulics of Fire Streams: with discussion. [*New York.*] 1889. 8vo.
- Fire-stream Tables: for the use of the inspectors of the Associated Factory Mutual Insurance Companies.
[*Boston?*] 1889. 8vo.
- The Nozzle as an accurate Water Meter. *Tract. 8vo. vol. 514.*
[*New York.*] 1891. 8vo.
- Some New Experiments and practical tables relating to Fire Streams. *Tract. 8vo. vol. 490.* *Boston*, 1890. 8vo.
- FREIBERG**.—*Königliche Sächsische Bergakademie*. Programm für das Lehrjahr 1886–87, etc. *Freiberg*, 1886, etc. 8vo.
- FREKE**, J. An Essay to shew the Cause of Electricity and why some things are Non-Electricable. In which is also consider'd its Influence in the Blasts on Human Bodies, in the Blights on Trees, in the Damps in Mines; and as it may affect the Sensitive Plant, etc.
Lond. 1746. 8vo.

- FRÉMINVILLE, A. J. DE. Cours pratique de machines à vapeur marines professé à l'École d'application du génie maritime. (Atlas of plates.) *Paris*, [1860?] 8vo. and folio.
- Étude sur les machines compound. *Tract. 4to. vol. 100.*
Paris, 1878. 4to.
- Traité pratique de construction navale. (Atlas of plates.)
Paris, 1864. 8vo. and 4to.
- FRÉMY, E. Traité de chimie générale. 1865. See PELOUZE, J., and FRÉMY, E.
- FRENCH PROTESTANT HOSPITAL. Bibliothèque de la Providence. Catalogue of the Library of the French Protestant Hospital, Victoria Park Road, London. By R. S. Faber, *etc.*
Lond. 1887. 8vo.
- FRENCH, B. F. History of the rise and progress of the Iron Trade of the United States, from 1621 to 1857, *etc.*
New York, 1858. 8vo.
- FRENCH, G. J. The Life and times of Samuel Crompton, inventor of the Spinning Machine called the Mule. *Lond.* 1859. 8vo.
- FRENCH, H. F. The principles, processes, and effects of Draining Land with Stones, wood, plows and open ditches, and especially with tiles: including tables of rainfall, *etc.* *New York*, 1884. 8vo.
- FRENCH, H. H. A Paper on Bournes, *etc.* *Tract. 8vo. vol. 447.*
Sutton, 1883. 8vo.
- FRÈRE, E. Notice historique sur la vie et les travaux de Marc Isambart Brunel. *Tract. 8vo. vol. 127.* *Rouen*, 1850. 8vo.
- FRESCOT, C. La ventilazione della galleria del Moncenisio. *Tract. 8vo. vol. 338.* *Torino*, 1881. 8vo.
- FRESENIUS, C. R. A system of instruction in Quantitative Chemical Analysis. 4th edition. *Lond.* 1865. 8vo.
- [Another edition.] Quantitative Chemical Analysis. Translated from the... German. 7th edition. Vol. 1. *Lond.* 1876. 8vo.
- FRESENIUS, C. R., and W. Ueber Portlandcement und über den Nachweis von fremden Zusätzen zu demselben. *Tract. 4to. vol. 97.*
[*Wiesbaden*, 1885.] 8vo.
- Researches relating to Adulterations of Portland Cement. [MS. translation of the preceding.] *Tract. 4to. vol. 97.* 4to.
- FRESENIUS, C. R., and WILL, H. New methods of Alkalimetry, and of determining the commercial value of acids and manganese, 12mo. *Tract. 8vo. vol. 373.* *Lond.* 1843. 8vo.
- FRESNEL, A. Œuvres complètes... Publiées par Henri de Senarmont, Émile Verdet et Léonor Fresnel. 2 vols.
Paris, 1866–68. 4to.
- Extrait d'un mémoire sur la double réfraction. *Tract. 8vo. vol. 42.*
(From the *Annales de Chimie et Physique.*) *Paris*, 1825. 8vo.

- FRESNEL, A.—*continued*. Mémoire sur un nouveau système d'éclairage des phares. *Tract. 4to. vol. 47. Paris, 1822. 8vo.*
- FRESNILLO. Notice on the Silver Mines of Fresnillo in the State of Zacatecas, Mexico. *Tract. 8vo. vol. 335. Lond. 1834. 8vo.*
- FRÉSON, C. Notice sur les ascenseurs hydrauliques pour bateaux. *Tract. 8vo. vol. 491. Francfort s/M. 1889. 8vo.*
- Société Cockerill. Mittheilungen über die hydraulischen Schiffelevatoren. *Tract. 8vo. vol. 471. Frankfurt a. M. 1888. 8vo.*
- FREUDENBERG, M. Die auf der Bleihütte bei Ems zur Gewinnung des Flugstaubs getroffenen Einrichtungen. *Tract. 8vo. vol. 360. Ems, 1882. 8vo.*
- FRÉVET, V. Conservation des bois. *Tract. 8vo. vol. 288. Paris, 1877. 8vo.*
- FREYCINET, C. DE. Principes de l'assainissement des villes, etc. *Paris, 1870. 8vo.*
- Projet de loi relatif au classement du réseau complémentaire des chemins de fer d'intérêt général. *Tract. 4to. vol. 81. Paris, 1878. 4to.*
- Traité d'assainissement industriel, etc. *Paris, 1870. 8vo.*
- FRIBOURG. Description historique et technique du grand pont suspendu en fil de fer, à Fribourg en Suisse. *Tract. 4to. vol. 35. Fribourg, 1839. 4to.*
- FRICK, J. Ar puro a domicilio nas cidades tropicaes. Plano original, etc. *Rio de Janeiro, 1889. 8vo.*
- FRIEDMANN, A. Designs for the Construction of Markets, Warehouses and Sheds. Translated from the German. *Lond. 1877. folio.*
- Rapport officiel sur la marine et les travaux maritimes à l'Exposition universelle de Vienne en 1873. *Vienne, 1874. 8vo.*
- FRIEDRICH-WILHELMS-HÜTTE, *Mülheim*. Musterbuch der Actien-Gesellschaft Bergwerks-Verein Friedrich-Wilhelms-Hütte. Theil 1. *Düsseldorf, 1893. 8vo.*
- FRIENDLY ASSOCIATION OF WORKING LIGHTERMEN. Articles of agreement. *Tract. 8vo. vol. 220. Lond. 1840. 8vo.*
- FRISI, R. P. Traité des rivières et des torrens ; augmenté du traité des canaux navigables. *Paris, 1774. 4to.*
- A treatise on Rivers and Torrents ; with the method of regulating their course and channels ; to which is added, an essay on navigable Canals. *Lond. 1818. 4to.*
- FRISSARD, P. F. Histoire du port du Havre. (Atlas of plates.) *Havre, 1837. 4to. and folio.*
- FRISWELL, R. T. Some practical notes on the Water Supply of Boilers, etc. *Tract. 8vo. vol. 529. Lond. 1892. 8vo.*

- FRITH, H. *The Flying Horse: the story of the Locomotive and the Railway.* Lond. 1893. 8vo.
- *The Romance of Engineering ... With ... illustrations.* Lond. 1892. 8vo.
- FRITSCH, K. von. *Beiträge zur geologischen Karte der Schweiz.* 15. Lieferung: das Gotthardgebiet. Bern, 1873. 4to.
- FRITSCH, W. von. *Ziffernbeiwerk zu den graphischen Curven-tableaux über die Ergebnisse des Oesterreichisch-Ungarischen Bergwerks-Betriebes von den Jahren 1855 bis inclusive 1866.* (Atlas of plates.) Wien, 1870. 8vo. and folio.
- — *Supplementheft, 1867.* (Atlas of plates.) Wien, 1870. 8vo. and folio.
- FRITZ, H. *Handbuch der landwirthschaftlichen Maschinen.* Berlin, 1880. 8vo.
- FRODSHAM, C. *A few Remarks upon the construction and principles of action of the Aneroid Barometer.* Tract. 8vo. vol. 285. Lond. 1849. 8vo.
- *On the Laws of Isochronism of the Balance Spring, as connected with the higher order of adjustments of watches and chronometers.* Tract. 8vo. vol. 502. Lond. 1849. 8vo.
(From Min. Proc. Inst. C.E.)
- FRODSHAM, W. J. *Results of experiments on the Vibrations of Pendulums, with different suspending springs, etc.* Tract. 8vo. vol. 41. Lond. 1838. 8vo.
- *Observations on Chronometers, etc.* 1834. See PARKINSON, W., and FRODSHAM, W. J.
- FROIDOUR, L. DE. *Lettre ... contenant la relation et la description des travaux qui se font en Languedoc, pour la communication des deux mers.* Toulouse, 1672. 12mo.
- FRÖLICH, O. *Die dynamoelektrische Maschine.* Berlin, 1886. 8vo.
- FROME. *Report on the Sewerage and Sewage Disposal of the Local Board District of Frome. By Respice Finem.* Tract. 8vo. vol. 511. Lond. 1882. 8vo.
- FROME, E. C., *Lieut.-Gen.* *Outline of the method of conducting a Trigonometrical Survey, etc.* Lond. 1840. 8vo.
- — *2nd edition. With an additional chapter on Colonial Surveying.* Lond. 1850. 8vo.
- — *4th edition, enlarged.* Lond. 1873. 8vo.
- FROMME, C. *Fromme's Montanistischer Kalender für Oesterreich-Ungarn 1877 (1881).* Redigirt von V. Wolff. Wien, [1876, 80.] 8vo.
- FRONTINUS, S. J. *De aquaeductibus urbis Romae commentarius, Antiquæ fidei restitutus, atque explicatus opera et studio ... I. Poleni.* Patavii, 1722. 4to.

- FRORIEP, R. On the Therapeutic Application of Electro-Magnetism in the treatment of Rheumatic and Paralytic Affections. Translated from the German. *Lond.* 1850. 8vo.
- FROSSARD DE SAUGY, E., and OTHERS. Réfutation péremptoire d'une brochure intitulée: Étude historique sur l'emploi de l'air comprimé envoyée par Mr. Dufresne-Sommeiller. *Tract.* 4to. vol. 112. *Genève*, 1890. 4to.
- FROST, J. Description of the causes of the Explosion of Steam-Boilers and of some newly-discovered properties of heat, etc. *Tract.* 8vo. vol. 84. *New York*, 1848. 8vo.
- FROST, P. An elementary Treatise on Curve Tracing. *Lond.* 1872. 8vo.
- Solid Geometry. 3rd edition. *Lond.* 1886. 8vo.
- FROST, R. A Treatise on the Law and Practice relating to Letters Patent for Inventions. *Lond.* 1891. 8vo.
- FROUD, A. G. Heating of Ships and Cargoes: waste of Heat in Steamers. [*Papers of the Shipmasters' Soc.*, No. 15.] *Lond.* 1891. 8vo.
- FROUDE, J. A. Oceana; or, England and her Colonies. *Lond.* 1886. 8vo.
- FROUDE, W. Address to the Mechanical Section of the British Association, etc. [On the fundamental principles which govern the behaviour of fluid, with special reference to the resistance of ships.] [*Lond.* 1876.] 8vo.
- Apparent Negative Slip in Screw-Propellers. (From Trans. Inst. Nav. Arch.) [*Lond.*] 1867. 4to.
- Considerations respecting the effective Wave Slope in the Rolling of Ships at Sea. (From Trans. Inst. Nav. Arch.) [*Lond.*] 1873. 4to.
- Description of an Instrument for automatically recording the Rolling of Ships. (From Trans. Inst. Nav. Arch.) [*Lond.*] 1873. 4to.
- Experiments upon the Effect produced on the Wave-making Resistance of Ships by length of Parallel Middle Body. (From Trans. Inst. Nav. Arch.) [*Lond.*] 1877. 4to.
- The fundamental Principles of the Resistance of Ships. (From Proc. Royal Soc.) [*Lond.*] 1876. 8vo
- The Laws of Fluid Resistance. [Science Lectures at South Kensington. Vol. 2.] *Lond.* 1879. 8vo.
- On Experiments with H.M.S. "Greyhound" [to determine the resistance experienced by large ships moving through smooth water]. (From Trans. Inst. Nav. Arch.) [*Lond.*] 1874. 4to.
- On Isochronism of Oscillation in Ships. (From Trans. Inst. Nav. Arch.) [*Lond.*] 1863. 4to.
- On the comparative Resistances of long Ships of several types. (From Trans. Inst. Nav. Arch.) [*Lond.*] 1876. 4to.

- FROUDE, W.—*continued*. On the graphic Integration on the Equation of a Ship's Rolling, including the effect of resistance.
(From Trans. Inst. Nav. Arch.) [Lond.] 1875. 4to.
- On the Influence of Resistance upon the Rolling of Ships. (Two Papers.) [Lond. 1872.] 8vo.
- On the practical Limits of the Rolling of a Ship in a sea-way.
(From Trans. Inst. Nav. Arch.) [Lond. 1865.] 4to.
- On the Ratio of Indicated to Effective Horse-Power, *etc.*
(From Trans. Inst. Nav. Arch.) [Lond.] 1876. 4to.
- On the Rolling of Ships. [Lond.] 1861. 4to.
(From Trans. Inst. Nav. Arch.)
- Remarks on Mechanical Power, and description of a new Dynamometer. Lond. 1857. 8vo.
- Remarks on Mr. Scott Russell's Paper on Rolling [of Ships].
[Lond. 1864 ?] 4to.
- Remarks on the Rolling of Ships. [Lond. 1862 ?] 4to.
- Report on experiments for the determination of the Resistance of a full-sized Ship, by trials with H.M.S. "Greyhound." *Tract. 8vo. vol. 241.* Lond. 1874. 8vo.
- Report . . . on the Frictional Resistance of Water on a surface, *etc.* Lond. 1874. 8vo.
- Supplementary note to . . . Remarks on Prof. Rankine's Paper on the mechanical principles of the action of Propellers.
[Lond. 1862 ?] 4to.
- Obituary notice of William Froude. Lond. 1880. 8vo.
(From Min. Proc. Inst. C.E.)
- FRÖW, C. A Map of the Lincolnshire and Norfolk Estuary, the outfalls of the rivers Witham, Welland, Nene and Ouse, and the main drains in the adjacent fen districts. *Tract. folio. vol. 13.* Holbeach, 1866. 8vo.
- Report and sketches of the Outfall of the River Witham and estuary, showing proposed improvements, *etc.* *Tract. folio. vol. 13.* Boston, 1864. folio.
- FRÜH, J. J. Ueber Torf und Dopplerit, eine minerogenetische Studie. *Tract. 8vo. vol. 361.* Zurich, 1883. 8vo.
- FRYER, A. The Destructor, Fryer's patent. Report of Leeds Sanitary Committee. *Tract. 8vo. vol. 341.* [Leeds, 1877.] 8vo.
- Dust and Ashes. *Tract. 8vo. vol. 445.* [1887 ?] 8vo.
- The Great Loan Land. [A description of the States of Kansas and Missouri.] 2nd edition. *Tract. 8vo. vol. 445.* Manchester, 1887. 8vo.
- On the Disposal of the Refuse of Towns; an address to the Corporation of Derby. *Tract. 8vo. vol. 341.* [Derby, 1887 ?] 8vo.

- FRYER, W. J., *Jun.* Architectural Iron Work.
New York, 1876. 8vo.
- FTELEY, A. Boston Waterworks. Additional supply from Sudbury River. Description of the work.
Boston, 1882. folio.
- Report of the Chief Engineer of the Aqueduct Commission on the building of a High Masonry Dam on the lower part of the Croton River. October 8, 1890. *Tract. 8vo. vol. 514.*
New York, 1890. 8vo.
- Stability of Brick Conduits. *Tract. 8vo. vol. 462.*
[*Chicago*,] 1883. 8vo.
- FTELEY, A., and STEARNS, F. P. Description of some Experiments on the Flow of Water. *Tract. 8vo. vol.*
[*New York*,] 1883. 8vo.
(From Trans. Am. Soc. C.E.)
- FUCHS, E., and LAUNAY, L. DE. Traité des gîtes minéraux et métallifères. Recherche, étude et conditions d'exploitation des minéraux utiles: description des principales mines connues; usages et statistique des métaux, etc. 2 vols.
Paris, 1893. 8vo.
- FUGE, R. An Essay on the Turnpike Roads of the kingdom, and the practicability of uniting them with the department of the General Post-office: also, showing the advantages of abolishing the tolls now collected, etc. *Tract. 8vo. vol. 201.*
Lond. 1832. 8vo.
- FULHAM VESTRY. Annual Report of the Surveyor, 1887-8 (1888-9, etc.).
Lond. 1887, etc. 8vo.
- Report on the Ventilation of Sewers. *Lond.* 1887. 8vo.
- Report on Sewer Ventilation. *Lond.* 1888. folio.
- Report on the Sewers in this district. [By J. P. Norrington.]
[*Lond.* 1892.] 8vo.
- Report on Wood Paving: Fulham Road, North End Road, Melmoth Place, and main route from Walham Green to Hammer-smith.
Lond. 1890. 8vo.
- FULLER, F. Crystal Palace. Evidence given before the Court of Inquiry. *Tract. 8vo. vol. 245.*
Lond. 1875. 8vo.
- A Letter to the Court of Inquiry on the restoration of prosperity and utility to the Crystal Palace. *Tract. 8vo. vol. 245.*
Lond. 1875. 8vo.
- FULLER, G. A new calculating Slide Rule, equivalent to a straight slide rule of 83' 4" long, or a circular rule 13' 3" in diameter.
Tract. 8vo. vol. 313. *Lond.* 1879. 8vo.
- Spiral Slide Rule. *Tract. 8vo. vol. 313.* *Lond.* 1879. 8vo.
- FULLER, J., and OTHERS. A report touching Lynn navigation.
Tract. folio. *Lenn Regis*, 1723. folio.

- FULLER, JOHN, *Senior*. Art of Coppersmithing: a Practical Treatise on Working Sheet Copper into all Forms. *New York*, 1894. 8vo.
- FULLER, R. "Nelson" Steamer, being a rough trial ... between the old and new paddle floats and wheels, etc. 1845. See NEWENHAM, W. P., and FULLER, R.
- FULLERTON, W. Architectural Examples in Brick, Stone, Wood and Iron. *Lond.* 1890. 4to.
- FULTON, H. H. London Water-Supply: outline of the plan for the proposed supply of water to London from the sources of the river Wye, etc. *Tract. 8vo. vol.* 152. *Lond.* 1869. 8vo.
- FULTON, R. A treatise on the improvement of Canal Navigation; with a description of the machinery for facilitating conveyance by water, and designs for aqueducts and bridges of iron and wood. *Lond.* 1796. 4to.
- FUNK, A., und RASCH, —. Pläne der neuen Irrenanstalten zu Göttingen und Osnabrück. *Tract. folio. vol.* 1. *Hannover*, [1862.] folio.
- FUNK, F. E. T. Beiträge zur allgemeinen Wasserbaukunst. 2 vols. *Lemgo*, 1808–9. 4to.
- Versuch einer auf Theorie und Erfahrung gegründeten Darstellung der wichtigsten Lehren der Hydrotechnik. Bd. 1. (Bewegung des Wassers in Flüssen.) *Berlin*, 1820. 4to.
(No more published.)
- FUNKE, O. Atlas of Physiological Chemistry, consisting of Microscopic Figures: a supplement to Lehmann's Physiological Chemistry. [*Cavendish Society*.] *Lond.* 1853. 4to.
- FURNACE, *Loch Fyne*. Report on an Explosion which occurred at Furnace, near Inverary ... By Major Ford. *Lond.* 1884. folio.
- FURNESS RAILWAY. Report of the Directors. *Barrow-in-Furness*, 1891. folio.
- FURNIVALL, W. C. Indian Railways. *Tract. folio. vol.* 42. 1884. folio.
- FYFE, A. On the Evaporative Power of different kinds of Coal. *Tract. 8vo. vol.* 175. [*Edinburgh*, 1841.] 8vo.
(From the Philosophical Journal.)
- On the Prevention of Smoke, and Economy of Fuel by the use of Steam, in the patent process of Ivison. *Tract. 8vo. vol.* 58. *Lond.* 1842. 8vo.
- FYNJE, H. F. Verslag over het stoomwerktuig in den polder van Wamel, Dreumel en Alphen. *Tract. 4to. vol.* 47. *Nijmegen*, 1849. 4to.

G.

- GABRIELY, A. VON. Die neue Brücke (Albrechtsbrücke) über die Mur in Graz. *Tract.* 4to. vol. 106. *Wien*, 1887. 4to.
- Strassenbrücke über die Noceschlucht bei St. Giustina in Süd-Tirol im Zuge der neuen Reichsstrasse von Cles nach Dermulo. *Tract.* folio. vol. 45. *Wien*, 1889. folio.
- GABRIELY, A. VON, and WINTER E. F. Ferdinands-Brücke in Graz. *Graz*, 1882. 4to.
- GACHASSIN-LAFITTE, G. Tunnel de la Manche. Difficultés d'aération. *Tract.* 8vo. vol. 346. *Paris*, 1881. 8vo.
- GADSDON, I. An Essay on the nature and properties of Arches in general, interspersed with some remarks on the intended Bridge at Westminster. *Tract.* 8vo. vol. 288. *Lond.* 1739. 8vo.
- GAERTH, H. Standard sections for Rails of ordinary and superior quality. *Tract.* 8vo. vol. 221. *Lond.* 1872. 8vo.
- GAGE, M. A. Remarks on the general construction of Docks in the Port of Liverpool, and strictures on the design of the intended new dock and warehouses. *Tract.* 8vo. vol. 75. *Liverpool*, 1841. 8vo.
- Report on the application of Wallasey Pool to the purposes of dock accommodation. *Tract.* folio. *Liverpool*, 1844. folio.
- Trigonometrical plan of the town and port of Liverpool, including the environs of Kirkdale, Everton, Low Hill, Edge Hill, and Toxteth Park. *Liverpool*, 1836. 8vo.
- GAINE, W. E. L. Report on the Blackburn Water Act. *Tract.* folio. vol. 37. *Blackburn*, 1885. folio.
- GAIRDNER, W. T. A plea for an extension and alteration of the Curriculum of Arts in the University of Glasgow, with a view to meet more perfectly the wants of the general community. *Tract.* 8vo. vol. 155. *Glasgow*, 1865. 8vo.
- GAISFORD, H. Elementary lessons in Steam Machinery, etc. 1893. See LANGMAID, J., and GAISFORD, H.
- GALBRAITH, G. The Cotton Spinners' Companion; containing the method of calculating the different machines used in a cotton spinning factory, etc. *Tract.* 8vo. vol. 402. *Glasgow*, 1835. 12mo.
- GALBRAITH, J. On the Conservation of Energy and the nature of force. *Tract.* 8vo. vol. 269. *Ontario*, 1877. 8vo.
- Technical Education, etc. *Tract.* 8vo. vol. 522. *Toronto*, 1892. 8vo.

- GALBRAITH, J. A. A statement in explanation of Evidence given before a Committee of the House of Commons, relative to the construction of the Boyne Viaduct. *Tract. 8vo. vol. 183.*
Dublin, 1858. 8vo.
- GALBRAITH, J. A., and HAUGHTON, S. Manual of Arithmetic. 2nd edition. *Lond. 1855. 8vo.*
- Manual of Astronomy. 2nd edition. *Lond. 1857. 8vo.*
- Manual of Hydrostatics. 3rd edition. *Lond. 1855. 8vo.*
- Manual of Mechanics. 4th edition. *Lond. 1855. 8vo.*
- Manual of Optics. 2nd edition. *Lond. 1856. 8vo.*
- Manual of Plane Trigonometry. 4th edition. *Lond. 1855. 8vo.*
- Short account of experiments made at Dublin, to determine the azimuthal motion of the plane of vibration of a freely-suspended pendulum. *Tract. 8vo. vol. 188. Dublin, 1851. 8vo.*
 (From Proceedings of the Royal Irish Academy.)
- GALBRAITH, W. Barometric Tables for engineers, geologists and scientific travellers. *Tract. 8vo. vol. 335. Edinburgh, 1833. 8vo.*
- Trigonometrical Surveying, levelling, and Railway Engineering. *Edinburgh, 1842. 8vo.*
- GALE, J. M. The Glasgow Waterworks. Papers read during session 1863-64 to the Institution of Engineers in Scotland. *Tract. 8vo. vol. 142. Glasgow, 1864. 8vo.*
- On the development of the theory of the Flow of Water in channels, etc. *Tract. 8vo. vol. 514. Glasgow, 1893. 8vo.*
- GALIBERN, J. C. Exploitation de mines en Espagne. *Tract. 8vo. vol. 220. Barcelone, 1871. 8vo.*
- GALLEY HEAD LIGHTHOUSE. Report by Professor Tyndall of an inspection of Galley Head Lighthouse on the 9th day of May, 1879; together with observations on that report by the Inspector of Lights and the Engineer to the Irish Lighthouse Board. *Lond. 1879. 8vo.*
- GALLIOT, —. Touage électrique des bateaux. [5th Int. Congr. Int. Nav.] *[Paris, 1892.] 8vo.*
- GALLOIS, E. La poste et les moyens de communication, etc. *Paris, 1894. 8vo.*
- GALLOTT, J. L. Table to calculate Earthwork Quantities, etc. *Lond. 1884. 8vo.*
- The universal Curve Table for ranging Railway Curves. *Lond. 1868. 16mo.*
- Universal tables for ranging Railway Curves applicable to metres, feet, or Gunter's Chain. 2nd edition. *Lond. 1884. 8vo.*

- GALLOUPE, F. E. *An Index to Engineering Periodicals, 1883 to 1887 inclusive: comprising Engineering, Railroads, Science, Manufactures and Trade.* Boston, 1888. 8vo.
- GALLOWAY, E. *History and Progress of the Steam Engine; with a practical investigation of its structure and application, etc.* Lond. 1836. 8vo.
- GALLOWAY, J. A. *Communication with India, China, &c. Observations on the proposed improvements in the overland route viâ Egypt, with remarks on the ship canal, the Boulac canal, and the Suez railroad.* Tract. 8vo. vol. 100. Lond. 1844. 8vo.
- GALLOWAY, R. *The First Step in Chemistry.* Lond. 1851. 8vo.
- *A Treatise on Fuel; scientific and practical.* Lond. 1880. 8vo.
- GALLOWAY, R. L. *A History of Coal Mining in Great Britain.* Lond. 1882. 8vo.
- *The Steam Engine and its Inventors; a historical sketch.* Lond. 1881. 8vo.
- GALLOWAY, W. *A Coal-dust Explosion.* Tract. 8vo. vol. 445. Lond. 1887. 8vo.
- (From the Proceedings of the Royal Society.)
- *The Flying Fish.* Tract. 8vo. vol. 509. [Cardiff? 1891.] 8vo.
- *On the connection between Colliery Explosions and Weather in 1872. 1874.* See SCOTT, R. H., and GALLOWAY, W.
- *Penygraig Disaster. Evidence of Mr. Galloway. Cause of the Explosion.* Tract. 8vo. vol. 328. Cardiff, 1881. 8vo.
- *Shot Firing in Mines. Part III.* Tract. 8vo. vol. 466. [Lond.] 1888. 8vo.
- *Sinking Appliances at Llanbradach.* Tract. 8vo. vol. 480. [Lond.] 1888. 8vo.
- GALT, A. T. *Canada, 1849 to 1859.* Tract. 8vo. vol. 176. Lond. 1860. 8vo.
- GALT, W. *Acceleration of the Irish Mail Trains.* Tract. folio. vol. 37. 1884. folio.
- *Railway Reform: its importance and practicability.* Lond. 1865. 8vo.
- GALTON, Sir D. *An Address on the Construction of Hospitals.* Lond. 1869. 8vo.
- *Address to the Sanitary Institute. 1892.* See SANITARY INSTITUTE. Report of Council, etc. 1892.
- *Army Sanitation: A course of Lectures . . . 2nd edition . . . enlarged by the lecturer.* Chatham, 1887. 8vo.
- *Healthy Hospitals: observations on some points connected with Hospital Construction.* Oxford, 1893. 8vo.
- *Memorandum on brake experiments made by the North Eastern Railway Company, at York . . . upon a train fitted with the Westinghouse Automatic Brake.* Tract. folio. vol. 25. [Lond. 1879.] folio.

- GALTON, Sir D.—*continued*. Memorandum on the Organization of the War Office. *Tract. folio. vol. 24.* Lond. 1868. folio.
- Observations on the Construction of Healthy Dwellings : namely, Houses, Hospitals, Barracks, Asylums, etc. Oxford, 1886. 8vo.
- On some preventible causes of Impurity in London Air. *Tract. 8vo. vol. 381.* Lond. 1880. 8vo.
- Report . . . on Brake Experiments made at Gisburn, on the Lancashire and Yorkshire Railway . . . July, 1880. *Tract. folio. vol. 48.* [Lond.] 1880. folio.
- Report on the Works of Sewerage and Drainage proposed for the town of Cannes. *Tract. 8vo. vol. 351.* Lond. 1883. 8vo.
- Sanitary Engineering ; Lectures delivered at the School of Military Engineering, Chatham. Chatham, 1877. folio.
- GALTON, F. The Telotype ; a printing electric telegraph. *Tract. 8vo. vol. 88.* Lond. 1850. 8vo.
- GALVÃO, M. DA C. Apontamentos sobre o melhoramento do porto de Pernambuco, etc. *Tract. 4to. vol. 66.* Rio de Janeiro, 1867. 4to.
- Apontamentos sobre os trabalhos de salubridade e utilidade publica do Rio de Janeiro. *Tract. 8vo. vol. 223.* Rio de Janeiro, 1858. 8vo.
- Apontamentos sobre telegraphos. *Tract. 4to. vol. 66.* Rio de Janeiro, 1869. 4to.
- Melhoramento dos portos do Brazil. *Tract. 8vo. vol. 212.* Rio de Janeiro, 1869. 8vo.
- GALVEZ, J. Message du Gouverneur de la Province de Santa Fé aux honorables Chambres Legislatives à l'ouverture de leurs sessions ordinaires de 1888. *Tract. 8vo. vol. 467.* Buenos Aires, 1888. 8vo.
- GALWAY, County. Piers and Roads, Counties of Galway and Mayo. Report by Colonel Fraser, R.E., to . . . the Lord Lieutenant. Dublin, 1889. folio.
- Queen's College. Calendar, 1886-7 (1887-8, 1888-9, 1890-1). Galway, 1886-90. 8vo.
- GAMBARDINI, B. Delle cagione e de' remedi delle inondazioni del Tevere, etc., 1746. See CHIESA, A., and GAMBARDINI, B.
- GAMBLE, J. An Essay on the different modes of Communication by Signals, etc. Lond. 1797. 4to.
- GAMBLE, J. G. Altitudes above Sea Level of places in South Africa, south of 20° S. latitude. *Tract. 8vo. vol. 427.* Cape Town, 1886. 8vo.
- Average Rainfall in Cape Colony. *Tract. folio. vol. 36.* Cape Town, 1884. folio.
- The Barometer and the Winds. *Tract. 8vo. vol. 363.* Cape Town, 1882. 8vo.

GAMBLE, J. G.—*continued*. Catalogue of printed books and papers relating to South Africa. Part II. Climate and Meteorology.
Cape Town, 1885. 8vo.

(Trans. S. African Phil. Society, Vol. 3.)

— Proposals of the Table Mountain Water Supply Company.
Tract. 8vo. vol. 483. [Cape Town?] 1882. 8vo.

— Rainfall of South Africa. Tract. 8vo. vol. 368.
[Cape Town?] 1878. 8vo.

— Report on the Water Supply of Cape Town. Tract. 8vo. vol. 262.
Cape Town, 1875. 8vo.

— Report on the Water Supply of Port Elizabeth. Tract. 8vo.
vol. 274. Port Elizabeth, 1877. 8vo.

GAMBOA, F. X. DE. Commentaries on the Mining Ordinances of Spain, etc. 2 vols. Lond. 1830. 8vo.

GAMOND, A. T. DE. See THOMÉ DE GAMOND.

GANA, H. S. British Capital and Chilian Industry, Nitrates, Gold Mines, and Coal Mines. Lond. 1889. 4to.

GAND. See GHENT.

GANGA RAM, *Rai Bahadur*. Engineering Calculations made easy. Calculating Scales. Tract. 8vo. vol. 362. Lond. [1884?] 8vo.

— Glossary of Notes on Waterworks. Roorkee, 1891. 8vo.

— Peshawar Water Supply, etc., 1890. See INDIA.—PESHAWAR.

GANGES CANAL. See INDIA.—GANGES CANAL.

GANGUILLET, E., and KUTTER, W. R. A General Formula for the uniform Flow of Water in Rivers and other Channels. Translated from the German, with . . . additions, etc.
New York, 1889. 8vo.

GANNETT, H. Boundaries of the United States and of the several States and Territories, with a historical sketch of the territorial changes. [U.S. Geol. Survey. Bulletin No. 13.]
Washington, 1885. 8vo.

— A Dictionary of Altitudes in the United States, compiled by Henry Gannett. [U.S. Geol. Survey. Bulletin, No. 5.]
Washington, 1884. 8vo.

— — 2nd edition. [Bulletin No. 76.] Washington, 1891. 8vo.

— Scribner's Statistical Atlas of the United States. [1885?] folio.
See HEWES, F. W., and GANNETT, H.

GANOT, A. Elementary treatise on Physics, experimental and applied. . . . Translated and edited by E. Atkinson. 9th edition.
Lond. 1863. 8vo.

— — 11th edition. Lond. 1883. 8vo.

GANOZ, J. A Manual of Instruction on the practice of Architectural Drawing. Madras, 1856. 8vo.

- GANT, S. C. Boro' of Leicester. Report on the Drainage of the town and borough, with improvements in the River Soar. *Tract. 8vo. vol. 259. Swansea, 1873. 8vo.*
- Notes and queries on the Public Health Act, 1848; with suggestions for a new bill. *Tract. 8vo. vol. 105. Lond. 1855. 8vo.*
- Report to the Basford Union Rural Sanitary Authority, on the supply of water to the parishes of Eastwood and Greasley. *Tract. 8vo. vol. 262. Nottingham, 1873. 8vo.*
- Report to the Town Council on the Drainage of the borough of Louth. *Tract. 8vo. vol. 259. Nottingham, 1874. 8vo.*
- GANTT, H. L., and MAURY, D. H. The Efficiency of Fluid in Vapor Engines. *Tract. 8vo. vol. 371. New York, 1884. 8vo.*
- GARAY, F. DE. El Valle de México. *México, 1888. 8vo.*
- GARBETT, E. L. Rudimentary treatise on the principles of Design in Architecture. 3rd edition. *Lond. 1867. 8vo.*
- GARCÉS, B. V., and ALVAREZ, J. G. Diccionario razonado legislativo y práctico de los ferro-carriles españoles: bajo aspecto legal, técnico, administrativo, y comercial de los mismos, etc. *Madrid, 1869. 8vo.*
- GARCIA, T. Memoria . . . sobre la teoría del beneficio de amalgamación por patio. *Tract. 8vo. vol. 480. Mexico, 1888. 8vo.*
- GARCKE, E., and FELS, J. M. Factory Accounts: their principles and practice. *Lond. 1887. 8vo.*
- GARDINER, M. Determination of the Motion of the Solar System in fixed unalterable space. *Tract. 8vo. vol. 362. Brisbane, 1883. 8vo.*
- Solution to the celebrated fundamental question (hitherto unsolved) of Dynamics. *Tract. 8vo. vol. 362. Brisbane, 1883. 8vo.*
- GARDINER, R. England's grievance discovered, in relation to the Coal Trade, with the map of the river of Tine, and situation of the Town and Corporation of Newcastle. *Newcastle, 1796. 8vo.*
- GARDISSAL, C. D. Technical Dictionary in the English, French and German languages. 1854. See TOLHAUSEN, A., and GARDISSAL, C. D.
- GARDNER, D. P. Address before the National Convention of Farmers and Gardeners . . . New York. . . 1844. *Tract. 8vo. vol. 61. New York, 1844. 8vo.*
- GARDNER, E. C. Town and Country School Buildings. *New York, 1888. 8vo.*
- GARDNER, E. V. An easy introduction to Railway Mensuration; illustrated by drawings, etc. *Lond. 1847. 8vo.*
- GARDNER, J. C. Perpetual Motion. *Tract. 8vo. vol. 161. Lond. 1867. 8vo.*

- GARDYNE, A. The Log of the "Lalage": being a description of a cruise on the Norfolk Broads. *Tract. 8vo. vol. 508.*
Stratford, 1891. 8vo.
- GARELLA, N. Projet d'un canal de jonction de l'océan Pacifique et de l'océan Atlantique à travers l'isthme de Panama.
Paris, 1845. 8vo.
- GARFORTH, W. E. Artificial Foundations and method of sinking through quicksand, *etc. Tract. 8vo. vol. 525.*
[Barnsley,] 1889. 8vo.
- Blasting by means of Compressed Air, *etc. Tract. 8vo. vol. 525.*
[Manchester,] 1879. 8vo.
- Fire-Damp Detector. *Tract. 8vo. vol. 525.*
[Barnsley,] 1884. 8vo.
- On a new Instrument for Underground Surveying. *Tract. 8vo. vol. 525.*
1880. 8vo.
- On Working Coal by Longwall, with some remarks on sudden outbursts of inflammable gas, *etc. Tract. 8vo. vol. 525.*
[Manchester,] 1885. 8vo.
- GARIEL, —. Dessins et notices relatifs à diverses constructions en ciment de la fabrique de Vassy-lès-Avallon (Yonne).
Paris, 1853. folio.
- GARIEL, C. M. Physique. 2 vols. *Paris, 1888. 8vo.*
- Traité pratique d'électricité, *etc. 2 vols. Paris, 1884–86. 8vo.*
- GARNAULT, E. Torpilles et défenses sous-marines. Rapport sur les appareils et expériences relatifs aux torpilles fabriqués à l'arsenal d'Amsterdam par M. Vandevælde. *Paris, [] 8vo.*
- GARNET, S.S. Copy of Extracts of Correspondence relative to the Inquiry held at Dundee, 8th April, as to the loss of the steamer "Garnet."
Lond. 1881. folio.
- GARNETT, R. On the Printing of the British Museum Catalogue, *etc. Tract. 8vo. vol. 473.*
[Lond.] 1882. 8vo.
- GARNETT, W. An Elementary Treatise on Heat.
Cambridge, 1887. 8vo.
- The Life of James Clerk Maxwell, *etc. 1882. See CAMPBELL, L., and GARNETT, W.*
- GARNIER, F. Régime des eaux ou des rivières navigables, flottables ou non, et de tous les autres cours d'eau. *Paris, 1822. 8vo.*
- Traité sur les puits artésiens. 2^e édition. *Paris, 1826. 4to.*
- GARNIER, J. G. Leçons de calcul différentiel. 3^e édition.
Paris, 1811. 8vo.
- GARNIER, R. M. Land Agency: containing . . . instructions for the management of landed estates, *etc. Lond. 1891. 8vo.*
- GARONNE, *River.* Bassin de la Garonne. Règlements et instructions concernant l'annonce des crues et l'étude des rivières.
Paris, 1879. folio.

- GARRAN, M. *Noticia sobre el puerto [de Barcelona], etc. Tract. 8vo. vol. 321.* *Barcelona, 1877. 8vo.*
- GARRETT, J. W. *Address before the Young Men's Christian Association of Baltimore. Tract. 8vo. vol. 363.* *Baltimore, 1883. 8vo.*
- GARSTIN, W. E. *Report of the Administration of the Irrigation Department [Egypt] for 1892, etc. Cairo, 1893, etc. 4to.*
- GARUFFA, E. *Orologeria moderna, etc. Milano, 1894. 8vo.*
- GARVEY, M. A. *The Patent Spondyloid Life Train. Tract. 8vo. vol. 301.* *Lond. [1876 f] 8vo.*
- GARVIE, J. *Modern Guns, etc., 1892. See RIGG, A., and GARVIE, J.*
- GARWOOD, A. E. *Rapport . . . sur sa gestion comme ingénieur en chef des chemins de fer du gouvernement égyptien. Tract. 8vo. vol. 363.* *Caire, 1883. 8vo.*
- GAS INSTITUTE. *See INCORPORATED GAS INSTITUTE.*
- GAS REFEREES. *Instructions for the Gas Examiners. Lond. 1873. folio.*
- *Notification of the Gas Referees. 1872-77. Lond. 1873-78. folio.*
- GASKELL, W. H. *The Sympathetic Nervous System. Tract. 8vo. vol. 426.* *Lond. 1886. 8vo.*
- GASSEND, —. *Travaux hydrauliques maritimes, etc. 1860. See LATOUR, —, and GASSEND, —.*
- GASSIOT, J. P. *Monetary Panics and their Remedy ; with opinions of the highest authorities on the Bank Charter Act. 2nd edition, enlarged. Tract. 8vo. vol. 178.* *Lond. 1867. 8vo.*
- GATEBECK. *Report on an Explosion of Gunpowder at Gatebeck near Kendal, July, 1881. By Maj. A. Ford. Lond. 1881. folio.*
- GATELY, G. L., and KLETZSCH, A. P. *Cylinder Condensation in Steam Engines, etc. Tract. 8vo. vol. 411.* *[Philadelphia,] 1885. 8vo.*
- GAUDARD, J. *Le cadran d'Achaz et les miracles. Lausanne, [.] 8vo.*
- *De l'évolution dans la construction des grands ponts. Tract. 4to. vol. 119.* *Lausanne, 1892. 4to.*
- *Discussion sur la résistance des matériaux, à l'Institution des Ingénieurs Civils Anglais. Tract. 8vo. vol. 224.* *Lille, 1871. 8vo.*
- *Étude comparative de divers systèmes de ponts en fer. Paris, 1865. 8vo.*
- *Examen des causes de la rupture du pont de Mönchenstein, etc. Tract. folio. vol. 47.* *[Berne, 1891.] folio.*
- *Le gauchissement des ponts métalliques. Tract. 8vo. vol. 510.* *Paris, 1893. 8vo.*

- GAUDARD, J.—*continued*. Limites des fondations profondes. *Tract.* 8vo. vol. 492. *Lausanne*, 1890. 8vo.
- Note sur les types fondamentaux de poutres métalliques et sur le système cantilever. *Tract.* 8vo. vol. 510. *Paris*, 1891. 8vo.
- Notice sur la propulsion pneumatique pour chemins de fer à fortes rampes, et sur le projet d'application de ce système au chemin de fer de Lausanne à Ouchy. [With an introduction by L. Gouin.] *Tract.* 4to. vol. 62. *Lausanne*, 1869. 4to.
- Pont construit à Lucerne en 1869–70. Notice. *Tract.* 8vo. vol. 230. *Paris*, 1873. 8vo.
- Les principaux systèmes de barrages mobiles de rivières. *Tract.* 8vo. vol. 406. *Lausanne*, 1886. 8vo.
- GAUDRY, J. La marine à l'Exposition universelle d'Anvers. *Tract.* 8vo. vol. 419. *Paris*, 1886. 8vo.
- Traité élémentaire et pratique de l'installation, de la conduite, et de l'entretien des machines à vapeur fixes, locomotives, locomobiles, et marines. 2^e édition. 3 vols. *Paris*, 1861–62. 8vo.
- GAUGER, N. The Mechanism of Fire made in Chimneys : or, the art of improving the effects and diminishing the expences thereof. *Lond.* 1716. 4to.
- GAUTHEY, E. M. Œuvres. 3 tom. *Paris*, 1809–16. 4to.
- 1–2. Traité de la construction des ponts.
3. Mémoires sur les canaux de navigation, et particulièrement sur le canal du Centre.
- Projet de dérivation, jusqu'à Paris, des rivières d'Ourcq, Therouenne et Beuvronne, d'une part, et des rivières d'Essone, Juine, Orge, Yvette, et Bièvre, de l'autre. *Tract.* 4to. vol. 8. *Paris*, 1803. 4to.
- GAUTIER, A. Coup d'œil sur l'état actuel de l'astronomie pratique en France et en Angleterre. *Tract.* 8vo. vol. 42. *Genève*, 1825. 8vo.
- Mémoire sur une nouvelle détermination de la longitude de Genève, précédé d'un coup d'œil sur celles qui ont été obtenues antérieurement. *Tract.* 4to. vol. 26. *Genève*, 1824. 4to.
- GAUTIER, H. Traité de la construction des chemins, etc. *Paris*, 1721. 8vo.
- Traité des ponts . . . Nouvelle édition. *Paris*, 1728. 8vo.
- GAWLER, S. *Australia*. Report on Gawler Water Supply. *Adelaide*, 1878. folio.
- GAZETTEER. The Parliamentary Gazetteer of England and Wales, adapted to the new poor-laws, etc., as existing at the close of the years 1839–42, illustrated by a series of maps. 4 vols. in 12 parts. *Glasgow*, 1840–43. 8vo.
- GEACH, E. History and progress of mining in the Caradon and Liskeard District. 1863. See WEBB, —, and GEACH, E.
- GEARY, S. Cemetery Designs for Tombs and Cenotaphs. *Lond.* 1840. folio.

- GEDDES, G. Rain : evaporation and filtration. *Tract. 8vo. vol. 194*
[*New York,*] 1855. 8vo.
- GEDDES, P. An analysis of the Principles of Economics. Part I.
Tract. 8vo. vol. 381. Lond. 1885. 8vo.
- GEELONG. Reports on the Water Supply of Geelong.
Melbourne, 1856–71. folio.
- GEIKIE, Sir A. Outlines of Field-Geology. 4th edition.
Lond. 1892. 8vo.
- The Scenery of Scotland viewed in connection with its physical
geology. Lond. and Cambridge, 1865. 8vo.
- Text book of Geology. Lond. 1882. 8vo.
- GEIKIE, J. The Great Ice Age, and its relation to the antiquity of
man. Lond. 1874. 8vo.
- GEINITZ, H. B. Neues Jahrbuch für Mineralogie, etc. See
PERIODICAL PUBLICATIONS.
- GEINITZ, H. B., FLECK, H., and HARTIG, E. Die Steinkohlen
Deutschlands, und anderer Länder Europas, etc. (Atlas of
plates.) 3 vols. München, 1865. 4to.
- GEIPEL, W. and KILGOUR, M. H. A pocket-book of Electrical
Engineering Formulæ. Lond. 1894. 8vo.
- GEIRINGER, L. Statistische Tabellen über den Zugförderungs-
und Werkstätten-Dienst bei österr.-ungar. Eisenbahnen.
Wien, 1876. 4to.
- GELDARD, J. Handbook on Cotton Manufacture, etc.
New York, 1867. 12mo.
- GELL, F. Dungeness : The protection of the roadstead essential to
the navigation of the British Channel and the Defence of the
South Coast. *Tract. 8vo. vol. 524.* Lond. 1889. 8vo.
- GENALA, F. Il Palazzo di San Giorgio in Genova, etc. 1889. See
GENOA.—*Palazzo di San Giorgio.*
- GENDEBIEN, A. La houille, le grisou ; les dégagements instantanés.
Tract. 8vo. vol. 415. Namur, 1885. 8vo.
- Les résistances des mines. *Tract. 8vo. vol. 391.*
Bruzelles, 1885. 8vo.
- Les théories des ventilateurs à force centrifuge des mines. *Tract.*
8vo. vol. 391. Namur, 1884. 8vo.
- GENERAL CONFERENCE OF ARCHITECTS, 1887. See ROYAL
INSTITUTE OF BRITISH ARCHITECTS.
- GENERAL COUNCIL OF MEDICAL EDUCATION AND RE-
GISTRATION OF THE UNITED KINGDOM.
- The Dentists' Register, 1887. Lond. 1887. 8vo.
- The Medical Register, 1887. Lond. 1887. 8vo.
- GENERAL PATENT COMPANY. Prospectus. *Tract. 8vo.*
Lond. 1858. 8vo.

- GENERAL POST OFFICE. The Post Office and the Telephone Companies. *Tract. 4to. vol. 89.* *Lond. 1884. 4to.*
- GENEVA. Ville de Genève: section des travaux. Utilisation des forces motrices du Rhône. *Tract. 4to. vol. 90. 3 parts.*
Genève, 1882-83. 4to.
- GENEVA, *Lake of.* Niveau des eaux du Léman. Réponse de l'État de Genève à la demande de l'État de Vaud. (Tribunal fédéral.) *Tract. 4to. vol. 83.* *Genève, 1880. 8vo.*
- Niveau des eaux du Léman. Duplique de l'État de Genève. (Tribunal fédéral.) *Tract. folio. vol. 30.* *Genève, 1880. folio.*
- GENEVA, *New York.* The Sewerage of the Village of Geneva. *Tract. 8vo. vol. 534.* *New York, 1894. 8vo.*
- GENIEYS, R. De la législation des cours d'eau. *Paris, 1830. 8vo.*
- Essai sur les moyens de conduire, d'élever, et de distribuer les eaux. *Paris, 1829. 4to.*
- Recueil de tables à l'usage des ingénieurs, etc. *Paris, 1835. 8vo.*
- GENNETÉ, —. Expériences sur le cours des fleuves: ou lettre à un magistrat hollandois. *Paris, 1760. 12mo.*
- Nouvelle construction de cheminées, qui garantit du feu, et de la fumée à l'épreuve des vents, etc. *Liège, 1760. 8vo.*
- GENOA. La ferrovia attraverso Genova e le circostanze economico-commerciali che la giustificano. *Tract. 8vo. vol. 303.*
Genova, 1862. 8vo.
- Porto di Genova, 1891. [Corpo Reale del Genio Civile.]
Imolo, 1892. 4to.
- Programma di concorso per la costruzione di due bacini di carenaggio nel porto di Genova. *Tract. 4to. vol. 98. 1886. 4to.*
- Tavole annesse alla risposta della Commissione tecnica incaricata di studiare il miglior modo di trasformare la darsina in doc commerciale alla memoria del Sigr. Cavre. Sauli in appoggio di un nuovo progetto di doc nel porto di Genova. *Genova, 1853. folio.*
- Palazzo di S. Giorgio. Il Palazzo di San Giorgio in Genova. Demolizione o conservazione. Relazione del deputato F. Genala. *Firenze, 1889. folio.*
- Società degli Architetti, Ingegneri Civili di Genova. Atti. 1876-78. *Genova, 1877-9. 8vo.*
- GENTE, A. Géologie appliquée aux arts et à l'agriculture, etc., 1851. *See ORBIGNY, C. D', and GENTE, A.*
- GENTH, F. A. The Minerals of North Carolina. [U.S. Geol. Survey. Bulletin No. 74.] *Washington, 1891. 8vo.*
- GENTILINI, R. La traversée des Alpes par le chemin de fer du Simplon. *Tract. 8vo. vol. 458.* *Paris, 1887. 8vo.*
- GEOGRAPHICAL SOCIETY. *See ROYAL GEOGRAPHICAL SOCIETY.*

GEOGRAPHICAL SOCIETY OF AUSTRALIA. *See* **ROYAL GEOGRAPHICAL SOCIETY, etc.**

GEOLOGICAL SOCIETY. Catalogue of the library (with maps) of the Geological Society of London. (Supplement.)

- London. 1846-56. 8vo.
- [Another edition.] London. 1881. 8vo.
- Proceedings. Vol. 1 to 3. London. 1834-42. 8vo.
- Quarterly Journal. Vol. 1, etc. London. 1845, etc. 8vo.
- Report of the Council to the annual general meeting, February, 1848. *Tract. 8vo. vol. 86.* [1848.] 8vo.
- Transactions. 1st series. 5 vols. London. 1811-21. 4to.
- — 2nd series. 7 vols. London. 1824-56. 4to.
- Classified Indexes to the Transactions, Proceedings and Quarterly Journal, etc. 1858-68. *See* ORMEROD, G. W.
- GEOLOGICAL SOCIETY OF DUBLIN.** *See* **ROYAL GEOLOGICAL SOCIETY OF DUBLIN.**
- GEOLOGICAL SOCIETY OF IRELAND.** *See* **ROYAL GEOLOGICAL SOCIETY OF IRELAND.**
- GEOLOGICAL SURVEY.—General Memoirs.** Memoirs of the Geological Survey of Great Britain and of the Museum of Economic (Practical) Geology in London. Vol. 1-3, and, vol. 4, pt. 1. 4 vols. in 5. London. 1846-72. 8vo.
- — Vol. 3. 2nd edition. London. 1881. 8vo.
- Figures and descriptions illustrative of British Organic Remains. Decades I.-XIII. 3 vols. London. 1849-72. 8vo.
- Figures and descriptions illustrative of British Organic Remains. Monograph I. On the Anatomy and Affinities of the Genus *Pterygotus*. By T. H. Huxley. London. 1859. 8vo.
- Monograph II. On the Structure of the *Belemnitidæ*. By T. H. Huxley. London. 1869. 8vo.
- The Geology of the Burnley Coal-field . . . By E. Hull and others. London. 1875. 8vo.
- Geology of East Somerset and the Bristol Coal-fields. . . . By H. B. Woodward, etc. London. 1876. 8vo.
- The Geology of Holderness . . . By C. Reid. London. 1885. 8vo.
- The Geology of the Fenland. By S. B. J. Skertchley. London. 1877. 8vo.
- The Geology of the Isle of Wight. By H. W. Bristow. 2nd edition, revised and enlarged: by C. Reid and A. Strahan. London. 1889. 8vo.
- The Geology of the Leicestershire Coal-field . . . By E. Hull. London. 1860. 8vo.
- The Geology of the Warwickshire Coal-field . . . By H. H. Howell. London. 1859. 8vo.

- GEOLOGICAL SURVEY. — *General Memoirs — continued.* The
Geology of the Yorkshire Coalfield. By A. H. Green and others.
Lond. 1878. 8vo.
- Guide to the Geology of London and the neighbourhood. By
W. Whitaker. 5th edition. Lond. 1889. 8vo.
- The Iron Ores of Great Britain. 4 pt. in 1 vol. Lond. 1856–61.
- The Jurassic Rocks of Britain. 3 vols. Lond. 1892–93. 8vo.
Vol. 1. Yorkshire. By C. Fox-Strangways.
" 2. Yorkshire—Table of Fossils. By C. Fox-Strangways.
" 3. The Lias of England and Wales (Yorkshire excepted). By
H. B. Woodward.
- Mineral Statistics of the United Kingdom for 1853–81. 11 vols.
Lond. 1855–82. 8vo.
- On the manufacture of Gun-flints, the method of excavating for
flint . . . and the connexion between Neolithic art and the gun-
flint trade. By S. B. J. Skertchley. Lond. 1879. 8vo.
- On the Tertiary Fluvio-marine Formation of the Isle of Wight.
By Prof. E. Forbes. Lond. 1856. 8vo.
- The Pliocene Deposits of Great Britain. By C. Reid.
Lond. 1860. 8vo.
- Report on the Geology of Cornwall, Devon and West Somerset.
By H. T. De la Beche. Lond. 1839. 8vo.
- The South Staffordshire Coal-field. By J. B. Jukes. 2nd edition.
Lond. 1859. 8vo.
- The Triassic and Permian Rocks of the Midland Counties of
England. By E. Hull. Lond. 1869. 8vo.
- *Sheet Memoirs.* [Memoirs illustrating and explaining the sheets
of the Geological Survey Map of Great Britain.]
Lond. 1857, etc. 8vo.
- [Ireland.] Geology of the counties mentioned in the various
sheets [of the maps of the Geological Survey of Ireland].
Dublin and Lond. 1851–65. 8vo.
- Report on the Geology of the County of Londonderry and of
parts of Tyrone and Fermanagh . . . By J. E. Portlock.
Dublin, 1843. 8vo.
- *Sheet Memoirs.* Explanations to accompany the various Sheets
of the map of the Geological Survey of Ireland.
Dublin, 1858, etc. 8vo.
- [Museum of Practical Geology.] Catalogue of the Library.
Compiled by H. White and T. W. Newton. Lond. 1878. 8vo.
- A descriptive Catalogue of the Geological Mining and Metal-
lurgical Models . . . By H. Bauerman. Lond. 1865. 8vo.
- Industrial Instruction on the Continent. By Sir L. Playfair.
Lond. 1852. 8vo.
- [School of Mines.] Records of the School of Mines, etc. Vol. 1.
Pts. 1, 3 and 4. Lond. 1852–53. 8vo.

- GEOLOGISTS' ASSOCIATION. Annual reports and lists of members, 1870-77. *Lond.* 1870-77. 8vo.
(The Proceedings contain the Annual Reports after 1877.)
- Catalogue of the Library. *Lond.* 1879. 8vo.
- Proceedings. *Lond.* 1865, etc. 8vo.
- GEOMETERVEREIN. See DEUTSCHER GEOMETERVEREIN.
- GEORGE, Duke of York. Cruise of H.M.S. "Bacchante." 1886.
See ALBERT VICTOR, Duke of Clarence, and GEORGE, Duke of York.
- GEORGE, C., Staff Commander, R.N. A method of computing the Height of Mountains, from observations of the Barometer, or the Boiling-point of Water. *Tract.* 8vo. vol. 229. [1873?] 8vo.
- GEORGE, E. M. The Silver and Indian Currency Questions treated in a practical manner. *Lond.* 1894. 8vo.
- GEORGE, J. The cause of Dry-Rot discovered, etc. *Lond.* 1829. 8vo.
- GEORGE, J. R. Description of the Patent Slip at Evans Bay, etc. *Tract.* 8vo. vol. 321. [1873.] 8vo.
- GEORGE TOWN, S. Australia. George Town and Port Pirie Railway. Goods traffic return. *Adelaide*, 1878. folio.
- GEORGETOWN, D.C. Report of the Water Board to the Councils: with the report of the engineer. *Tract.* 8vo. vol. 124. *Washington*, 1860. 8vo.
- GEORGETOWN, Demerara. Drainage and Sewerage of the City of Georgetown. Report by H. Siccama. *Demerara*, 1880. folio.
- GERALDTON, W. Australia. Papers respecting the Terminus of the Geraldton and Northampton Railway at Northampton. *Perth*, 1878. folio.
- GÉRALDY, F. L'électricité comme force motrice. 1883. See Du MONCEL, T., and GÉRALDY, F.
- GÉRARD, E. Amélioration de la passe du Bec-d'Ambès. *Tract.* 8vo. vol. 521. *Bordeaux*, 1893. 8vo.
- Eléments d'électro-technique. *Liège*, 1886. 8vo.
- GÉRARDIN, H. Théorie des moteurs hydrauliques, applications et travaux exécutés pour l'alimentation du canal de l'Aisne à la Marne par des machines. *Paris*, 1872. 8vo. and folio.
- GERCKE, O., NIENBURG, W., and FRANZIUS, L. Projekt zur Correction der Unterweser. *Leipzig*, 1882. folio.
- GERHARD, W. P. A Guide to Sanitary House Inspection, etc. *New York*, 1885. 8vo.
- Hints on the Drainage and Sewerage of Dwellings. *New York*, 1884. 8vo.
- GERHARDT, C. Recherches sur la puissance de vaporisation des locomotives en relation avec le tirage. *Tract.* 4to. vol. 82. [1878.] 4to.

- GERMAIN, F. Aurons-nous la guerre? 2^e édition. *Tract.* 8vo. vol. 178. *Lond.* 1859. 8vo.
- GERMANY.—[*Building.*] Ministerium für Handel, Gewerbe und öffentliche Arbeiten. Bauausführungen des preussischen Staats. (Atlas of plates.) *Berlin*, 1851–52. 4to.
- Vorschriften für die Ausbildung und Prüfung derjenigen, welche sich dem Baufache widmen. *Tract.* 4to. vol. 109. *Berlin*, 1855. 4to.
- [Education.] Rapport sur l'organisation de l'enseignement industriel en Allemagne et en Suisse, juin, 1864. *Paris*, 1865. 4to.
- Commission on Technical Instruction. Report on Technical Instruction in Germany and Switzerland, etc. *Tract.* 8vo. vol. 364. *Lond.* 1869. 8vo.
- [Inland Navigation.] Karte des Verkehrs auf deutschen Wasserstrassen im Jahre 1885. Herausgegeben von Sympher. Erläuterungen zu der Karte. *Berlin*, 1889. 8vo.
- [Railways.] Joint Report of Col. Rich and Lt.-Col. Luard on Hilfs system of Railway and the military arrangements in Germany for working Railways in time of War. *Lond.* 1885. folio.
- Statistische Nachrichten von den preussischen Eisenbahnen. Bearbeitet auf Anordnung des Ministers für Handel, etc. [For the years 1844 to 1879.] 27 vols. *Berlin*, 1855–80. 4to.
- Statistik der Eisenbahnen Deutschlands. *Berlin*, 1882, etc. 4to.
- GERMELMANN, —. Stoppages on Canals and Canalised Rivers in Germany. [5th Int. Congr. Int. Nav.] [*Paris*, 1892.] 8vo.
- GERMOND DE LAVIGNE, A. A notice of the Wine of Saint-Raphael. *Tract.* 8vo. vol. 315. *Paris*, [1878?] 8vo.
- GERNAERT, J. Distribution d'eau à l'agglomération bruxelloise, etc. *Bruxelles*, 1891. 8vo.
- GERNAERT, J., and WITMEUR, H. Les travaux de percement du tunnel sous les Alpes entre Bardonnèche et Modane. *Tract.* 8vo. vol. 303. *Bruxelles*, 1869. 8vo.
- GEROLD and Co. Die Literatur (1865–76) aus dem Gesamtgebiete des Bau- und Ingenieurwesens. *Wien*, 1865–77. 8vo.
- GERSTNER, F. J. von. Handbuch der Mechanik. Mit Beiträgen von neuern englischen Konstruktionen vermehrt. 3 vols. (Atlas of plates.) *Prag*, 1831–34. 4to.
- A treatise on Mechanics. Edited and considerably augmented by Chevalier F. A. de Gerstner. *Tract.* 4to. vol. 46. (Atlas of plates wanting.) *Vienna*, 1834. 4to.
- Mémoire sur les grandes routes, les chemins de fer et les canaux de navigation. *Paris*, 1827. 8vo.
- GERVILLE, — DE. Essai sur les sarcophages, leur origine et la durée de leur usage. *Tract.* 4to. vol. 57. *Poitiers*, [1833?] 4to.

- GESELL, A. Geologische Verhältnisse des Steinsalzbergbaugebietes von Soóvár. *Tract. 8vo. vol. 420.* Budapest, 1886. 8vo.
- GESNER, A. A practical treatise on Coal, Petroleum, and other distilled oils . . . 2nd edition. New York, 1865. 8vo.
- GESSERT, M. A. The Art of Painting on Glass, or glass-staining: translated from the German by W. Pole. *Tract. 4to. vol. 38.* Lond. 1844. 4to.
- GETHIN COLLIERY. Report of J. H. Blackwell on the accident in the . . . Colliery. Lond. 1863. folio.
- GETTYSBURG. [Three maps of the battlefield.] (Official.) Washington, 1876. 4to.
- GHEGA, Le Chev. C. DE. Atlas pittoresque du chemin de fer du Semmering: précédé d'un aperçu historique et statistique sur les chemins de fer en exploitation en Autriche. Vienna, 1854. obl. 8vo.
- GHEENT.—*Association des Ingénieurs sortis des Écoles spéciales de Gand.* Annales, 1876-77 (1877-78, etc.). Bruxelles, 1877, etc. 8vo.
- Bulletin mensuels. 12 vols. Bruxelles, 1879-89. 8vo.
- *University of Ghent.* Dispositions concernant les écoles préparatoires et spéciales du génie civil et des arts et manufactures. Gand, 1878-83. 8vo.
- Fêtes du soixante-quinzième anniversaire de la fondation de l'Université de Gand. Gand, 1892. 8vo.
- Ouverture solennelle des cours. Rapport sur la situation de l'université pendant l'année 1886-87 (1890-91, etc.). Gand, 1887, 90, etc. 8vo.
- Programme des cours: année académique 1878-79 (1885-90-91, etc.). Gand, 1878, etc. 8vo.
- GHERCÉVANOF, N. Canaux d'irrigation au Caucase. *Tract. 8vo. vol. 514.* Paris, 1890. 8vo.
- GIBBONS, B. On the Ventilation of Mines; and especially of the thick or ten-yard coal mines of South Staffordshire. Birmingham, 1847. 8vo.
- GIBBONS, D. A Manual of the Law of Fixtures. Lond. 1836. 12mo.
- Rudimentary treatise on the Law of Contracts for work and services. Lond. 1857. 8vo.
- GIBBS, F. F. Remarks on the free Navigation of the Rhine, etc. 1829. See RHINE, River.
- GIBBS, H. H. The Double Standard; with an introduction by H. R. Grenfell. *Tract. 8vo. vol. 421.* Lond. 1881. 8vo.
- GIBBS, H. H., and GRENFELL, H. R. The Bimetallic Controversy: a collection of pamphlets, papers, speeches, and letters. Lond. 1886. 8vo.
- GIBBS, JAMES. Book of Architecture. 1728. folio.

- GIBBS, JOSEPH. Cotton Cultivation in its various details: the barrage of great rivers, and instructions for irrigating, embanking, draining, and tilling land in tropical and other countries, *etc.*
Lond. 1862. 8vo.
- Report upon the Great Northern Railway. *Tract. folio. vol. 37.*
Lond. 1835. folio.
- GIBBS, L. Map showing the Drainage of the Fenland. *Tract. folio. vol. 43.*
1888. folio.
- Map showing the low lands draining through the Trent. *Tract. folio. vol. 43.*
1888. folio.
- GIBRALTAR. Report on the Sanitary Condition of Gibraltar with reference to the epidemic cholera in the year 1865: by Dr. Sutherland.
Lond. 1867. folio.
- GIBSON, L. H. Gradual Reduction Milling: a treatise on the art of modern milling.
Minneapolis, 1885. 8vo.
- GIBSON, T. The Ground Screw and its application to Piles and Moorings. *Tract. 8vo. vol. 363.*
Lond. [1882?] 8vo.
- GIERTH, C. A. Mappa geral do sul do Imperio do Brazil. . . .
mostrando o systema de viãção ferrea existente e em projecto, *etc.*
Paris, 1883. 8vo.
- GIFFARD, H. Notice théorique et pratique sur l'injecteur automoteur breveté, propre à l'alimentation des chaudières à vapeur et à l'élévation de l'eau. 2^e édition.
Paris, 1861. 4to.
- GIGOT, A. Les caisses syndicales d'assurance mutuelle contre les accidents, *etc.* *Tract. 8vo. vol. 513.*
Paris, 1892. 8vo.
- GILARDINI, G. Sul moto delle acque nei tubi ed alla sortita dalle bocche: formole teorico-pratiche indipendenti da coefficienti numerici, applicazione, principj ed analisi. *Milano,* 1867. 8vo.
- GILBART, J. W. Lectures on the history and principles of Ancient Commerce.
Lond. 1853. 8vo.
- GILBERT, A. P. M. Notice historique et descriptive de l'église cathédrale de Saint-Pierre de Beauvais. *Tract. 4to. vol. 57.*
Beauvais, 1829. 4to.
- GILBERT, D. Addresses to the Royal Society at the anniversary meetings on St. Andrew's day, 1827, 1828, and 1830. *Tract. 8vo. vol. 54.*
Lond. 1828–30. 8vo.
- An investigation of the methods used for approximating to the Roots of Affected Equations. *Tract. 8vo. vol. 54.*
(From the Quarterly Journal.) [*Lond.* 1823?] 8vo.
- On some properties of the Catenarian Curve; with reference to bridges by suspension. *Tract. 8vo. vol. 54.* *Lond.* [1821.] 8vo.
(From the Quarterly Journal.)
- On the expediency of assigning specific names to all such Functions of Simple Elements as represent definite physical properties; with the suggestion of a new term in mechanics, illustrated by an investigation of the machine moved by recoil; and also by some observations on the steam-engine. *Tract. 4to. vol. 9.*
(From the Phil. Trans.) *Lond.* 1827. 4to.

- GILBERT, D.—*continued*. On the general nature and advantages of Wheels and Springs for Carriages, the draft of cattle, and the form of roads. *Tract. 8vo. vol. 15.* *Lond. [1825.] 8vo.*
- On the mathematical theory of Suspension Bridges, with tables, etc. *Tract. 4to. vol. 9.* *Lond. 1826. 4to.*
(From the Phil. Trans.)
- On the nature of Negative and of Imaginary quantities. *Tract. 4to. vol. 38.* *(From the Phil. Trans.) Lond. 1831. 4to.*
- On the progressive improvements made in the efficiency of Steam Engines in Cornwall. *Tract. 4to. vol. 37.* *Lond. 1830. 4to.*
(From the Phil. Trans.)
- On the Regular or Platonic Solids. *Tract. 8vo. vol. 54.* *(From the Phil. Mag. and Annals.) Lond. 1828. 8vo.*
- On the Ventilation of Rooms, and on the ascent of heated gases through flues. *Tract. 8vo. vol. 54.* *Lond. 1822. 8vo.*
(From the Quarterly Journal.)
- On the Vibrations of heavy bodies in cycloidal and in circular Arches, as compared with their descents through free space, etc. *Tract. 8vo. vol. 54.* *Lond. 1823. 8vo.*
(From the Quarterly Journal.)
- A plain statement of the Bullion Question, in a letter to a friend. 2nd edition. *Tract. 8vo. vol. 54.* *Lond. 1819. 8vo.*
- A table for facilitating the computations relative to Suspension Bridges. *Tract. 4to. vol. 35.* *Lond. 1831. 4to.*
(From the Phil. Trans.)
- GILBERT, G. K. Lake Bonneville. [*U.S. Geol. Survey. Monograph I.*] *Washington, 1890. 4to.*
- See CALL, R. E. On the quaternary and recent Mollusca of the Great Basin. . . . Introduced by a sketch of the quaternary lakes of the Great Basin, by G. K. Gilbert. 1884.
- GILBERT, Sir J. H. On some points in connection with Animal Nutrition. *Tract. 8vo. vol. 269.* *Lond. 1876. 8vo.*
- On some points in connection with Vegetation. *Tract. 8vo. vol. 264.* *Lond. [1876.] 8vo.*
- Results of experiments at Rothamsted on the growth of Barley. *Tract. 8vo. vol. 427.* *Cirencester, 1886. 8vo.*
- Results of experiments at Rothamsted, on the Growth of Leguminous Crops, for many years in succession on the same land, etc. *Tract. 8vo. vol. 492.* *Cirencester, 1889. 8vo.*
- Results of Experiments at Rothamsted on the Growth of Root Crops for many years in succession on the same land, etc. *Tract. 8vo. vol. 473.* *Cirencester, 1887. 8vo.*
- [For works by Sir J. B. Lawes and Sir J. H. Gilbert:] See LAWES, Sir J. B., and GILBERT, Sir J. H.
- GILBERT, W. De magnete, magneticisque corporibus, et de magno magnete tellure; physiologia nova, plurimis et argumentis et experimentis demonstrata. *Londini, 1600. 4to.*

- GILCHRIST, P. C. The Basic Process as applied to Copper Smelting.
Tract. 8vo. vol. 503. Lond. 1891. 8vo.
- The Manufacture of Steel and Ingot Iron, *etc.* 1882. *See*
THOMAS, S. G., and GILCHRIST, P. C.
- Progress of the Basic or Thomas-Gilchrist process for 1886. *Tract.*
vol. 8vo. 530. 1886. 8vo.
- GILCHRIST, P. C., and OTHERS. Debate at the Hampstead Liberal
Club on Sanitation as applied to our Homes. *Tract. 8vo. vol. 520.*
[1891.] 8vo.
- GILES, C. Why we do not adopt the French Metrical System, *etc.*
Tract. 8vo. vol. 412. Lond. 1886. 8vo.
- GILL, H. Projekt des Direktors Gill, die Errichtung einer neuen
Wassergewinnungs-Station am Müggel-See betreffend. *Tract. 4to.*
vol. 120. [Berlin, 1887.] 4to.
- GILL, H., and FÖLSCH, A. Hamburger Stadtwasserkunst. Gutachten
über das . . . Project der Filtration. *Tract. 8vo. vol. 326.*
Hamburg, 1881. 8vo.
- GILL, J. An Essay on the Thermo-Dynamics of Elastic Fluids.
Tract. 8vo. vol. 129. Lond. 1860-61. 8vo.
- GILL, T. Address to the proprietors of the South Devon Railway.
With an Appendix containing the engineer's reports on the atmo-
spheric system, and financial statements, *etc.* *Tract. 8vo. vol. 82.*
Lond. 1848. 8vo.
- Machinery improved, its Friction reduced, *etc.* *Lond. 1839. 8vo.*
- GILL, T., and CONES, E. Material for a Bibliography of North
American Mammals. *Tract. 4to. vol. 111.*
Washington, 1877. 4to.
(From the Reports of the U.S. Geol. and Geogr. Survey.)
- GILL, W. Notes on the disposal of excreta and refuse in the Mining
District of Triano. *Luchana, 1885. folio.*
- Apuntes sobre el modo de disponer de la excreta é inmundicias
en el distrito minero de Triano. *Tract. 8vo. vol. 406.*
Bilbao, 1886. 8vo.
- GILLELEN, F. M. L. The Oil Regions of Pennsylvania, *etc.*
Pittsburg, 1864. 8vo.
- GILLESPIE, —. Mr. and Mrs. Gillespie *versus* Messrs. J. Russel and
Son, Ironmasters, Falkirk. *Edinburgh, 1862. 8vo.*
- GILLESPIE, W. M. A manual of the Principles and Practice of
Road-Making. . . 6th edition. *New York, 1853. 8vo.*
- — 10th edition : edited by C. Staley. *New York, 1874. 8vo.*
- A treatise on Land Surveying, *etc.* *New York, 1855. 8vo.*
- — [Another edition.] Revised and enlarged by C. Staley.
New York, 1888. 8vo.
- A Treatise on Levelling, Topography and higher Surveying.
New York, 1870. 8vo.

- GILLMORE, Q. A. Engineer and Artillery Operations against the defences of Charleston Harbour in 1863, *etc.* [*Prof. Papers, Corps of Engineers, U.S. Army.* No. 16.] *New York*, 1868. 8vo.
- Notes on the Compressive Resistance of Freestone, Brick Piers, Hydraulic Cements, Mortars and Concretes. *New York*, 1888. 8vo.
- Official report . . . of the Siege and reduction of Fort Pulaski, Georgia, February, March and April, 1862. [*Prof. Papers, Corps of Engineers, U.S. Army.* No. 8.] *New York*, 1862. 8vo.
- Practical treatise on Limes, Hydraulic Cements, and Mortars. 3rd edition. *New York*, 1870. 8vo.
- A practical treatise on Roads, Streets, and Pavements. *New York*, 1876. 8vo.
- Report on Béton aggloméré; or, Coignet-béton and the materials of which it is made. [*Prof. Papers, Corps of Engineers, U.S. Army.* No. 19.] *Washington*, 1874. 8vo.
- Report on the Jetty System as applied to the channel of entrance to Cumberland Sound. *Tract. 8vo. vol. 280.* *New York*, 1876. 8vo.
- GILLON, A, and DUJARDIN, —. Laminier à trois cylindres pour tôles, plaques de blindage, et longerons. *Tract. 8vo. vol. 250.* [1873.] 8vo.
- GILLOT, C. L. Traité de fortification souterraine, ou des mines offensives et défensives, *etc.* *Paris*, 1805. 4to.
- GILMAN, D. C. The Building of the University [of California]: an inaugural Address delivered at Oakland. *San Francisco*, 1872. 8vo.
- Report on the National Schools of Science. *Washington*, 1872. 8vo.
- GILMAN, N. P. Profit Sharing between Employer and Employee, *etc.* *New York*, 1889. 8vo.
- GILOUARD, P. C. The Use of Railways for Coast and Harbour Defence. *Tract. 8vo. vol. 531.* *Lond.* 1891. 8vo.
- GILPIN, E. The distinctive features of the various Nova Scotia Coal Fields. *Tract. 8vo. vol. 434.* [1886?] 8vo.
- GILPIN, J. A Memoir on the rise, progress, and present state of the Chesapeake and Delaware Canal. *Wilmington, U.S.*, 1821. 8vo.
- GIL Y MONTAÑA, J. Historia de los ferro-carriles desde su establecimiento en diferentes naciones hasta nuestros dias, seguida de una noticia sobre la aplicacion del vapor á la locomocion terrestre, *etc.* *Barcelona*, 1866. 8vo.
- GIOPPI, U. Su alcune misure di portata e di rigurgito alle tombe del Canale Cavour. 1893. See PASINI, P., and GIOPPI, U.
- GIOPPPO, P. Il tachigrafo: apparecchio automatico per controllo della trazione e del movimento dei convogli nelle strade ferrate. *Firenze*, 1884. 8vo.

- GIORDANO, F. Esame geologico della catena Alpina de San Gotardo. *Tract. folio. vol. 17.* Firenze, 1872. folio.
- Nécrologie. Quintino Sella, homme d'État et savant italien. *Tract. 8vo. vol. 455.* Paris, 1884. 8vo.
- GIORGINI, C. Sui fiumi nei tronchi sassosi e sull' Arno nel piano di Firenze. Discorso, etc. Firenze, 1854. 8vo.
- GIPPSLAND. Gippaland and Goulburn Valley Railways. Minutes. Melbourne, 1877-78. folio.
- GIPSY QUEEN, *Ship*. Report on the Stranding of the *Gipsy Queen*. (Official.) Lond. 1879. folio.
- GIRARD, A. Recherches sur le développement de la betterave à sucre. (Atlas of plates.) Paris, 1887. 8vo. and folio.
- GIRARD, L. D. Notice sur le chemin de fer glissant à propulsion hydraulique, système L. D. Girard, perfectionné par A. Barre. *Tract. 8vo. vol. 490.* Paris, 1889. 8vo.
- GIRARD, P. S. Considérations sur les canaux et sur le mode de leur concession. 2^{me} édition. *Tract. 8vo. vol. 11.* Paris, 1824. 8vo.
- Description générale des différens ouvrages à exécuter pour la distribution des eaux du canal de l'Ourcq dans l'intérieur de Paris, et devis détaillé de ces ouvrages. *Tract. 4to. vol. 17.* Paris, 1812. 4to.
- Devis général du canal de l'Ourcq, depuis la première prise d'eau à Mareuil jusqu'à la barrière de Pantin. *Tract. 4to. vol. 47.* 2^{me} édition. Paris, 1819. 4to.
- Devis général du canal St. Martin, et supplément. *Tract. 4to. vol. 17.* Paris, 1820. 4to.
- Essai sur le mouvement des eaux courantes et la figure qu'il convient de donner aux canaux qui les contiennent. *Tract. 4to. vol. 51.* Paris, 1804. 4to.
- Mémoire sur le canal de Soissons destiné à joindre le canal de l'Ourcq aux canaux des Ardennes et de Saint-Quentin. *Tract. 4to. vol. 47.* Paris, 1824. 8vo.
- Mémoires sur le canal de l'Ourcq et la distribution de ses eaux ; sur le dessèchement et l'assainissement de Paris, et les divers canaux navigables qui ont été mis à exécution ou projetés dans le bassin de la Seine pour l'extension du commerce de la capitale. 2 vols. Paris, 1831-43. 4to. and folio.
- Mémoires : 1°. sur le mouvement des fluides dans les tubes capillaires, et l'influence de la température sur ce mouvement. 2°. Sur l'écoulement linéaire de diverses substances liquides par des tubes capillaires de verre. 3°. Sur les atmosphères liquides, et leur influence sur l'action mutuelle des molécules solides qu'elles enveloppent. Paris, 1817-20. 4to.
- (From the Mémoires de l'Académie Royale des Sciences.)
- Recherches sur les canaux de navigation, considérés sous le rapport de la chute et de la distribution de leurs écluses. *Tract. 4to. vol. 11.* Paris, 1820. 4to.
- (From the Mémoires de l'Académie Royale des Sciences.)

- GIRARDIN, E. DE. *La guerre. Tract. 8vo. vol. 178.*
Paris, 1859. 8vo.
- GIRARDIN, J., CORDIER, —, and BUREL, E. *Rapport sur l'exposition universelle de 1855, suivi de la liste des exposants de la Seine-Inférieure, etc.*
Rouen, 1856. 8vo.
- GIRDLESTONE, J. W. *Application, with testimonials . . . for the appointment of Chief Engineer of the London County Council, 1889. Tract. 8vo. vol. 484.*
Bristol, 1889. 8vo.
- *Ordnance. Tract. folio. vol. 9.*
Lond. 1871. folio.
- *Report to the Docks Committee of the Council of Bristol on the new Dredger. Tract. folio. vol. 39.*
Bristol, 1886. folio.
- GIROLA, A. *Sulla costruzione di fabbricati per scuole elementari. 1887. See PRINETTI, T., and GIROLA, A.*
- GISBORNE, L. *Cavetown District, County of Roscommon. Supplemental Report to the Commissioners, showing the present state of the works, etc.*
Dublin, 1850. 8vo.
- *The Isthmus of Darien in 1852. Journal of the expedition of inquiry for the junction of the Atlantic and Pacific oceans.*
Lond. 1853. 8vo.
- *Longford District . . . Supplemental Report on drainage, etc. 1850. See MULVANY, T. J., and GISBORNE, L.*
- *Thames Improvement, London. Statement of design. Tract 8vo. vol. 291.*
Lond. 1853. 8vo.
- GJERS, J. *A short historical Sketch of the . . . Cleveland Iron Trade. Tract. 8vo. vol. 255.*
Lond. 1875. 8vo.
- GLADSTONE, A. *History of the London Water Supply, etc. Tract. 8vo. vol. 359.*
Lond. 1884. 8vo.
- GLADSTONE, J. H. *Michael Faraday. 2nd edition.*
Lond. 1873. 8vo.
- GLADSTONE, Rt. Hon. W. E. *On Books and the Housing of them. Tract. 8vo. vol. 496.*
Lond. 1890. 8vo.
- (From the "Nineteenth Century.")
- GLAISHER, J. *An Account of Meteorological and Physical Observations made in five balloon ascents in the year 1863 (in continuation of eight made in the preceding year). Tract. 8vo. vol. 142.*
(From the Report of the British Association.) [Lond. 1863.] 8vo.
- *Meteorological Table, etc. See WOODCROFT, B., and GLAISHER, J.*
- *Quarterly Papers and Tables on the Meteorology of England, Scotland, Ireland and Wales. Tract. 8vo. vols. 135 and 246.*
Lond. 1848-61. 8vo.
- *Royal Microscopical Society. The President's address for the year 1867-68 (1868-69). Tract. 8vo. vols. 167 and 198.*
[Lond. 1868, 69.] 8vo.
- *Travels in the Air. 2nd revised edition.*
Lond. 1871. 8vo.

GLAMORGANSHIRE CANAL. Act for making . . . a Canal from Merthyr Tidvile to and through a place called the Bank near Cardiff, *etc.* *Lond.* 1790. folio.

— Act to amend [the Act of 1790], and for extending the Canal to a place called The Lower Layer, *etc.* *Lond.* 1796. folio.

— Minutes of proceedings and evidence taken before the Select Committee of the House of Lords on the Glamorganshire Canal Dock Bill. *Lond.* 1878. folio.

GLASER, F. C. *Annalen für Gewerbe und Bauwesen.* See PERIODICAL PUBLICATIONS.

GLASER DE CEW, G. *Die magnetelektrischen und dynamo-elektrischen Maschinen, und die sogenannten Secundär-Batterien.* *Wien*, 1883. 8vo.

— *Magneto- and Dynamo-electric Machines . . . With many additions by P. Higgs.* *Lond.* 1884. 8vo.

— — Second edition . . . by W. B. Esson. *Lond.* 1887. 8vo.

GLASGOW.—[*Explosions.*] Report upon three Explosions on the 20th and 21st of January, 1883; by Col. V. D. Majendie. *Lond.* 1883. folio.

— [*Roads.*] Report from the Select Committee on the Roads between Glasgow and Port Patrick. *Lond.* 1823–24. folio.

— [*Sewage.*] Minutes of joint Committee of the Magistrates and Council, the Clyde Trustees, and the Board of Police, on the subject of the Sewerage of Glasgow, and the Purification of the River Clyde, with report by Messrs. Bateman and Bazalgette. *Tract. folio. vol. 11.* *Glasgow*, 1868. folio.

— Report on the methods of Disposing of Sewage, adopted in various towns in England. *Tract. 8vo. vol. 297.* *Glasgow*, 1878. 8vo.

— Report by the Deputation appointed by the Magistrates and Council of Glasgow to inquire into the treatment of Sewage in various towns in England, 1 Sept. 1880. Appendix by Dr. Wallace, 7 October, 1880. *Tract. 8vo. vol. 325.* *Glasgow*, 1880. 8vo.

— [*Water Supply.*] An Act for supplying the City and Suburbs of Glasgow with Water. (1806.) *Lond.* 1835. folio.

— An Act for the further Supply of the City and Suburbs of Glasgow and places adjacent with Water. (1808.) *Lond.* 1834. folio.

— An Act to enable the Company of Proprietors of the Glasgow Waterworks to introduce an additional supply of water to the City and Suburbs of Glasgow. *Lond.* 1846. folio.

— Minutes of Proceedings and Minutes of Evidence taken before the Select Committee on Private Bills on the Glasgow Corporation Water Bill. *Lond.* 1879. folio.

- GLASGOW.—[*Water Supply*]*—continued.* Glasgow Waterworks.
Glasgow, etc. 1853–55. 8vo.
1. Report by J. F. La T. Bateman. Maps and sections.
 2. Chemical reports on the quality of the water.
 3. Additional chemical reports.
 4. Reports of the Magistrates in council.
 5. Report by R. Stephenson and I. K. Brunel.
 6. Table of rainfall in the Loch Katrine district.
 7. Table of the rise of tide in the river Forth, and of the rise and fall of lakes and rivers, Loch Katrine district. Diagrams.
- [*Weights and Measures.*] Report from the select committee on the petition of the city of Glasgow, and minutes of evidence.
Lond. 1824. folio.
- *College of Science and Arts, afterwards Glasgow and West of Scotland Technical College.* Syllabus of Classes for sessions 1885–86 and 1886–87. *Glasgow,* 1885, 86. 8vo.
- Calendar 1887–88 (1888–89, *etc.*). *Glasgow,* 1887, *etc.* 8vo.
- Annual Report. *Glasgow,* 1884. 8vo.
- *Geological Society of Glasgow.* Transactions. 6 vols.
Glasgow, 1865–80. 8vo.
- *International Exhibition, 1888.* The Official Catalogue.
[Glasgow,] 1888. 8vo.
- The Official Guide, 1888. *[Glasgow,]* 1888. 8vo.
- Catalogue of the Fine Arts Section. *[Glasgow,]* 1888. 8vo.
- *Mining Exhibition.* Catalogue of Exhibits.
Hamilton, 1885. 8vo.
- *Mitchell Library.* See MITCHELL LIBRARY.
- *Naval and Marine Engineering Exhibition, 1880–81.* Lectures on Naval Architecture and Engineering ; with Catalogue of the Exhibition.
Lond. 1881. 8vo.
- *Philosophical Society of Glasgow.* Proceedings.
Glasgow, 1844, *etc.* 8vo.
- Patents for Inventions: remarks by Sir W. Thomson on the petition to the Lord Chancellor. *Tract.* 8vo. vol. 473.
Glasgow, 1877. 8vo.
- Reports relative to exhibition of Apparatus for the utilization of Gas, Electricity, *etc.* Sept.–Oct. 1880. *Tract.* 8vo. vol. 337.
Glasgow, 1882. 8vo.
- GLASGOW AND CLYDESDALE STATISTICAL SOCIETY.
 Constitution and Regulations. *Tract.* 4to. vol. 58.
Glasgow, 1836. 4to.
- GLASGOW AND SOUTH WESTERN RAILWAY. Report by the Board of Trade on the Classification of Merchandise Traffic, and schedule of maximum rates.
Lond. 1891. folio.
- GLASGOW AND WEST OF SCOTLAND SMOKE ABATEMENT ASSOCIATION. Report. *Tract.* 8vo. vol. 519.
Glasgow, 1893. 8vo.

- GLASGOW CENTRAL RAILWAY. Select Committee on the Glasgow Central Railway Bill. Minutes of Evidence, *etc.*
Lond. 1888. folio.
- Estimate of expense. *Lond.* 1888. folio.
- GLASGOW, PAISLEY AND ARDROSSAN CANAL. Act for the construction of the Canal (and amended act).
Lond. 1806, 27. folio.
- GLASGOW, PAISLEY, KILMARNOCK AND AYR RAILWAY. Minutes of evidence taken before the Lords' Committee from June 26 to July 5, 1837. *Lond.* 1837. folio.
- Report of the Directors, *etc.* *Tract.* 8vo. vol. 60.
Glasgow, 1839. 8vo.
- GLASGOW RAILWAY. Reports and documents relative to the . . . Railway and Tunnel. *Tract.* 8vo. vol. 60. *Glasgow*, 1829. 8vo.
- GLASGOW UNION RAILWAY. Report by the Board of Trade, on the Classification of Merchandise Traffic and schedule of maximum rates. *Lond.* 1891. folio.
- GLASGOW UNIVERSITY. Calendar, 1865–66, (1869–70, *etc.*)
Glasgow, 1865, 69, *etc.* 8vo.
- Syllabus of a course of Lectures on Civil Engineering and Mechanics. *Tract.* 8vo. vol. 80. *Edinburgh*, 1841. 8vo.
- GLASS, R. A. Glass *v.* Boswall. [An action for alleged wilful damage to a telegraph cable laid by plaintiff from Dunwich to Zandvoort.] Transcript of Messrs. Cocks' shorthand notes. *Tract.* 8vo. vol. 185. *Lond.* 1861. 8vo.
- Glass *v.* Boswall. Affidavits and arguments for a new trial. *Tract.* 8vo. vol. 185. *Lond.* 1861. 8vo.
- GLEIM, C. O., and ENGELS, H. Die Strassenbrücke über die Norder-Elbe bei Hamburg, *etc.* *Berlin*, 1890. folio.
- GLEN, A. Electric Lighting Act, 1882. See GLEN, W. C., and GLEN, A.
- The Highway Acts, 1862–1878; the Locomotive Acts, 1861–1872; and the general provisions of the Turnpike Continuance Acts, 1863–1878 . . . 5th edition, with a paper on the Construction and Repair of Roads, by W. Nethersole. *Lond.* 1879. 8vo.
- The Law relating to the Lower Thames Valley Main Sewerage Board. *Lond.* 1878. 8vo.
- The Powers and Duties of Surveyors of Highways, *etc.* *Lond.* 1880. 8vo.
- GLEN, W. C. The Law relating to Public Health and Local Government. 4th edition. *Lond.* 1866. 8vo.
- See ATCHLEY, —. Civil Engineers' and Contractors' Estimate Book. . . . To which is added The Law of Contracts, by W. C. Glen. 1867.
- See DONALDSON, T. L. Handbook of Specifications . . . with a review of the law of contracts . . . by W. C. Glen. 1859.

- GLEN, W. C. and GLEN, A. The Electric Lighting Act, 1882, and the Acts therewith incorporated ; also the rules of the Board of Trade, of October, 1882, *etc.* *Lond.* 1882. 8vo.
- GLENELG. Estimated Cost of the Glenelg Reservoir.
(Official.) *Adelaide*, 1878. folio.
- GLIDDON, G. R. Ancient Egypt . . . 12th edition. *Tract.* 4to. vol. 59. *Philadelphia*, 1848. 8vo.
- GLOUCESTER, *County of.* Act for the Improvement of Roads in the County of Gloucester. *Lond.* 1785. folio.
- Fourth (Fifth) Annual Report of the Highways and General Purposes Committee of the Gloucestershire Council.
Gloucester, 1893. 8vo.
- GLOUCESTER AND BERKELEY CANAL. Act for making . . . a Canal from the River Severn at Gloucester to Berkeley Pill . . . and also a Cut to the Town of Berkeley. *Lond.* 1793. folio.
- Acts for authorizing the Proprietors to vary the Line of a part of the Canal, and to raise a further sum of Money : and for enlarging the powers of the several acts for making the Canal.
Lond. 1797, 1805, 18. folio.
- Bill for consolidating the several Shares of the Proprietors of the Canal, *etc.* *Lond.* 1832. folio.
- Minutes of speech, evidence, and proceedings, taken before the Select Committee of the House of Lords on the Gloucester and Berkeley Canal Bill. *Lond.* 1874. folio.
- GLOVER, F. R. A. Harbours of Refuge. *Tract.* 8vo. vol. 524. *Lond.* 1846. 8vo.
- Harbours of Refuge ; not “ dangerous decoys,” “ ship traps,” nor “ wrecking pools.” A reprint, in part, of a pamphlet (dated 1846), with some original papers, *etc.* *Tract.* 8vo. vol. 125. *Lond.* 1859. 8vo.
- GLOVER, G. Correct Gas Measurement. *Tract.* 8vo. vol. 308. *Lond.* 1879. 8vo.
- GLOVER, T. G., *Lieut.-Col., R.E.* The Ganges Canal : illustrated by photographs. *Roorkee*, 1867. 4to.
- Lectures delivered at the Thomason Civil Engineering College, Roorkee, 1865. See MEDLEY, J. G., and GLOVER, T. G.
- GLOVSKINSKY, —, *Prof.* Russian Railways. [Details of construction, *etc.*] Part 1. 1868. obl. folio.
- GLOYNE, R. M. Sanitary Engineering : tables for ascertaining the discharges at different depths in the same Sewers, and the heights of Weirs or Storm Overflows without repeated use of formula. *Tract.* 8vo. vol. 490. *Manchester*, 1890. 8vo.
- GLYNN, J. Description of a Sawing Machine for cutting Railway Bars. *Tract.* 4to. vol. 36. *Lond.* 1840. 4to.
- (From the Trans. Inst. C.E.)
- Draining Land by Steam Power. *Tract.* 8vo. vol. 22. (From the Trans. of the Society of Arts.) *Lond.* 1836. 8vo.

- GLYNN, J.—*continued*. Report on the application of Locomotive Steam Power to Railways generally. *Tract. 8vo. vol. 2.*
Alfreton, 1833. 8vo.
- Report on the Turbine and horizontal Water-Wheel of France and Germany. *Tract. 8vo. vol. 87.* *Lond. 1848. 8vo.*
 (From the Report of the British Association.)
- Report on Water-pressure Engines. *Tract. 8vo. vol. 96.*
 (From the Report of the British Association.) *Lond. 1849. 8vo.*
- A review of the plans . . . for connecting the Atlantic and Pacific Oceans by a navigable Canal. *Tract. 8vo. vol. 498.*
 (From Min. Proc. Inst. C.E.) *Lond. 1849. 8vo.*
- Rudimentary Treatise on the construction of Cranes and Machinery for raising heavy bodies, *etc.* *Tract. 8vo. vol. 383.*
Lond. 1849. 8vo.
- Rudimentary Treatise on the Power of Water, as applied to drive flour mills, and to give motion to turbines and other hydrostatic engines. *Lond. 1853. 8vo.*
- GMELIN, L. Handbook of Chemistry . . . Translated by Henry Watts. 19 vols. [*Cavendish Society.*] *Lond. 1858–72. 8vo.*
- GOBERT, A. Le canal d'Anvers au Rhin et ses conséquences. *Tract. 8vo. vol. 455.* 1888. *8vo.*
- De l'utilité des canaux maritimes dans la Belgique cismosane. *Tract. 8vo. vol. 376.* *Bruzelles, 1884. 8vo.*
- Voyage à Vienne. [2^{me} Congrès international de navigation intérieure.] *Tract. 4to. vol. 96.* *Bruzelles, 1886. 4to.*
- Utilité des canaux maritimes. *Vienne, 1886. 8vo.*
- GOBIN, A. Des murs de soutènement et de la poussée des terres. *Paris, 1884. 8vo.*
- GÖBL, W. Montan-geologische Beschreibung des Pířbramer Bergbau-Terrains, *etc.* *Wien, 1892. 4to.*
- GODALMING. Act for the Improvement of the town of Godalming. *Lond. 1825. folio.*
- GODFREY, A. An Account of a new method of extinguishing Fires by Explosion and Suffocation. [With MS. notes by J. Farey relative to the author.] *Tract. 8vo. vol. 36.* 1724. *8vo.*
- GODFREY, R. The "Amines" Process of Sewage Treatment. *Tract. 8vo. vol. 496.* 1889. *8vo.*
- Way-Leaves and Easements. *Tract. 8vo. vol. 525.* 1891. *8vo.*
- GODKIN, J. The Land-war in Ireland: a history for the times. *Lond. 1870. 8vo.*
- GODREVY ISLAND. Communications . . . on the subject of the erection of a Lighthouse on Godrevy Island, in St. Ives Bay. (Official.) *Lond. 1858. folio.*
- GODSON, R. A practical treatise on the Law of Patents for Inventions and of Copyright, *etc.* *Lond. 1823. 8vo.*

- GODWARD, W. Interpolation Tables, used in the Nautical Almanac Office. *Tract. 8vo. vol. 114.* *Lond. 1857. 8vo.*
- GODWIN, G., *Jun.* An Appeal to the public on the subject of Railways. *Tract. 8vo. vol. 79.* *Lond. 1837. 8vo.*
- Essay upon the Nature and Properties of Concrete, and its application to construction up to the present period. *Tract. 4to. vol. 28.* (From *Trans. of the Inst. of British Architects.*) *Lond. 1836. 4to.*
- A Letter on the state of Architecture in the provinces. *Tract. 8vo. vol. 59.* (From the *Architectural Magazine.*) *Lond. 1836. 8vo.*
- On the Obelisk from Luxor, recently elevated in Paris; with some few remarks on obelisks generally. *Tract. 8vo. vol. 59.* *Lond. 1836. 8vo.*
- GODWIN, H. C. Railroad Engineers' Field-book and Explorer's Guide. *New York, 1890. 12mo.*
- GOERING, A. Bemerkungen zu den 3 Aufsätzen über "Railway Steep Inclines" vom 29 Januar 1889. *Tract. 4to. vol. 111.* *Berlin, 1889. 4to.*
- GŒURY, —. Recueil polytechnique des ponts et chaussées, canaux de navigation, ports maritimes, etc. 2 vols. *Paris, 1806-7. 4to.*
- GOGORZA, A. A. DE. Proposed Route for a Tide Level Canal from the Gulf of Uraba to that of San Michel, via the Atrato, Cacarica, Paya and Tuyra Rivers. *Tract. 8vo. vol. 474.* *New York, 1888. 8vo.*
- GOLAZ, L. Obus calorimétrique de P. Mahler. *Tract. 8vo. vol. 519.* [*Paris, 1892.*] *8vo.*
- GOLBORNE, J. Letter in reply to some questions respecting the Drainage of Keyingham Level. *Tract. 8vo. vol. 46.* *Hull, 1800. 8vo.*
- Report concerning the Drainage of the North Level of the Fens, and the outfall of the Wisbeach river. *Tract. 4to. vol. 54.* *Chester, 1769. 4to.*
- Report in pursuance of several resolutions passed at a meeting of the Committee of Landowners, and others, interested in the improvement of the outfall of the river Ouse. *Tract. 4to. vol. 54.* *Lynn, 1791. 4to.*
- Report on the Drainage of Keyingham Level, in Holderness. *Tract. 8vo. vol. 46.* *Cambridge, 1799. 8vo.*
- Reports relative to a navigable communication betwixt the Firths of Forth and Clyde. 1768. See BRINDLEY, J., YEOMAN, T., and GOLBORNE, J.
- GOLDICUTT, J. The competition for the erection of the Nelson Monument critically examined. *Tract. 8vo. vol. 59.* *Lond. 1841. 8vo.*
- GOLDEN VALLEY RAILWAY. Report by the Board of Trade, on the Classification of Merchandise Traffic and schedule of maximum rates. *Lond. 1891. folio.*

- GOLDMANN, N. *Elementorum architecturæ militaris libri iv.*
3 vols. *Lugd. Batavor.* 1643. 12mo.
- GOLDSMID, Sir F. J. *On Communications with British India*
under possible contingencies. *Tract. 8vo. vol. 442.*
Lond. 1878. 8vo.
- *Persia: its Language and Literature, etc.* *Tract. 8vo. vol. 522.*
Lond. 1892. 8vo.
- GOLDSMITHS' COMPANY. *Advance Prospectus of the Gold-*
smiths' Company's Technical and Recreative Institute.
Lond. 1891. 8vo.
- GOLDSTRAW, W. *A manual of the Building Regulations in force*
in the City of Liverpool. *Liverpool,* 1882. 8vo.
- GOLDSWORTHY, G. *Report from the Select Committee on the case*
of Mr. G. Goldsworthy. *Lond.* 1834–35. folio.
- GOLOVATCHOFF, A. A. *Istoria Jeleznodorojnavo dyelav Rossii.*
(*History of Railway Management in Russia.*) *Tract. 8vo. vol.*
347. *St. Petersburg,* 1881. 8vo.
- GONÇALVES DE SA, C. *Relatorio apresentado á assemblea geral*
dos accionistas do Banco do Commercio em 25 de Agosto de 1884.
Tract. 8vo. vol. *Rio de Janeiro,* 1884. 8vo.
- GONDA, B. DE. *La régularisation des portes de fer et des autres*
cataractes du bas Danube. [*5th Int. Congr. Int. Nav.*]
[*Paris,* 1892.] 8vo.
- GONIN, E. *Manuel pratique de construction.* (*Atlas of plates.*)
Paris, 1877. 8vo. and 4to.
- GONIN, L. *Lifts and Pneumatic Railways exhibited at the Inter-*
national Exhibition at Liverpool, 1886. *Tract. 8vo. vol. 422.*
Lausanne, 1886. 8vo.
- *Notice sur l'ascenseur à air comprimé pour chemins de fer à*
fortes rampes et à profil varié. *Tract. 8vo. vols. 304 and 318.*
Lausanne, 1880. 8vo.
- *Visite d'un ingénieur suisse aux travaux de reboisement des*
Alpes françaises dans la vallée de Barcelonnette (Basses Alpes).
Notice. *Tract. 8vo. vol. 496.* *Lausanne,* 1890. 8vo.
- GOOCH, F. A., and WHITFIELD, J. E. *Analyses of Waters of the*
Yellowstone National Park, with an account of the methods
of analysis employed. [*U.S. Geol. Survey. Bulletin No. 47.*]
Washington, 1888. 8vo.
- GOODACRE, W. G. *A scheme for drawing off and disposing of all*
Smoke, Waste Gases, Impure Air, etc. *Tract. 8vo. vol. 519.*
Wigan, [1891.] 8vo.
- GOODALL, J. *Notes on Blasting at Ahuriri Bluff, Napier, in con-*
nection with the construction of the breakwater. *Tract. 8vo.*
vol. 474. [*Wellington,*] 1886. 8vo.
- *On the Formation of Timaru Downs.* *Tract. 8vo. vol. 474.*
[*Wellington,*] 1886. 8vo.

- GOODELL, J. M. The Prevention of Electrolysis of Water Pipes, *etc.*
Tract. 8vo. vol. 534. *Brooklyn*, 1894. 8vo.
- GOODEVE, T. M. Abstract of reported cases relating to Letters
Patent for Inventions (bringing the cases down to the end of the
year 1883). *Lond.* 1884. 8vo.
- The Elements of Mechanism : designed for students of applied
mechanics. *Lond.* 1860. 8vo.
- — 2nd edition. *Lond.* 1871. 8vo.
- Principles of Mechanics. *Lond.* 1881. 8vo.
- Text Book on the Steam Engine. *Lond.* 1879. 8vo.
- — 8th edition. With a supplement on Gas Engines.
Lond. 1887. 8vo.
- GOODEVE, T. M., and SHELLEY, C. P. B. The Whitworth measur-
ing machine. *Lond.* 1877. 8vo.
- GOODRICH, A. T. The Northern Traveller ; containing the routes
to Niagara, Quebec, and the springs, *etc.*
New York, 1826. 12mo.
- GOODRIDGE, J. C. Beton Coignet and Goodridge System of con-
structing and repairing Railway and other Structures. *Tract.*
8vo. vol. 409. *New York*, 1883. 8vo.
- Modifying the climate by closing the Straits of Belle Isle.
Tract. folio. vol. 38. *New York*, 1886. folio.
- Will the Washington Monument stand? *Tract.* 8vo. vol. 409.
[*New York*, 1885.] 8vo.
- GOODWIN, G. A. The relative merits of working Hoisting Machin-
ery by Steam, Water, and Electricity. *Tract*, 8vo. vol. 534.
[*New York*,] 1893. 8vo.
- GOODWIN, J. M. The Panama Ship Canal and Inter-Oceanic Ship
Railway Projects. *Tract.* 8vo. vol. 323. *Cleveland*, 1880. 8vo.
- GOODWIN, W. W. The Economy of Gas as a Fuel for Cooking
purposes. *Tract.* 8vo. vol. 329. *New York*, 1879. 8vo.
- GOODWYN, H. Memoir of an improved system of Suspension
Bridges on the principle adopted by Mr. Dredge. *Tract.* 4to.
vol. 32. (Lithographed.) *Calcutta*, 1843. 4to.
- Memoir on the application of Asphaltic Mastic to flooring, roofing,
and hydraulic works in India. *Tract.* 4to. vol. 39.
(Lithographed.) *Calcutta*, 1843. 4to.
- Memoir on Wrought-Iron Roofing, as applicable to every descrip-
tion of building, and shewing the modification necessary to adapt
the systems to European dwellings in India, *etc.* (Atlas of
plates.) *Calcutta*, 1844. 4to. and folio.
- The theory and practice in the construction of Suspension
Bridges, and the origin of the "resultant tension" principle,
having reference to the project for bridging the Hooghly. *Tract.*
4to. vol. 68. *Calcutta*, 1854. 4to.

GOODWYN, H.—*continued*. The first centenary of a series of . . . Tables of all the complete Decimal Quotients . . . from dividing a unit, or any whole number less than each divisor, by all integers from 1 to 1024, *etc.* *Tract.* 4to. vol. 117. *Lond.* 1818. 4to.

GOODYEAR, W. A. The Coal Mines of the Western Coast of the United States. *San Francisco*, 1877. 8vo.

GORBALS. An Act for further and better supplying with Water the Barony or Regality of Gorbals. (1846.) *Lond.* 1851. folio.

— An Act to amend the "Gorbals Gravitation Water Company Act, 1846," to authorize the Extension of the Works and the Construction of new Works to supply . . . Rutherglen . . . with Water. (1850.) *Lond.* 1852. folio.

GORDON, A. Circular relating to Lighthouses, Light Ships, Buoys, and Beacons. *Tract.* 8vo. vol. 137. [1863.] 8vo.

— Description of the Fumific Impeller; showing the direct application of hot products of combustion to the bodies on which they are required to act, without the intervention of machinery. *Tract.* 8vo. vol. 80. *Lond.* 1845. 8vo.

— The fitness of Turnpike roads and Highways for . . . internal communication. *Tract.* 8vo. vol. 4. *Lond.* 1835. 8vo.

— An historical and practical Treatise upon elemental Locomotion, by means of steam carriages on common roads. *Lond.* 1832. 8vo.

— A treatise upon Elemental Locomotion and interior communication, of Steam Carriages, and the comparative value of turnpike roads, railways, and canals; with an appendix, containing a description of a new road-surveying instrument. 3rd edition. *Lond.* 1836. 8vo.

— Journal of Elemental Locomotion, 1832, 33. *See* PERIODICAL PUBLICATIONS.

— Lighthouses and Beacons of the British colonies; what is required for them, and for their administration. In two letters to the Rt. Hon. T. M. Gibson, M.P., President of the Board of Trade. *Tract.* 8vo. vol. 137. *Lond.* 1861. 8vo.

— Lighthouses of the British colonies and possessions abroad; being a letter to J. Hume, Esq., M.P. *Tract.* 8vo. vol. 87. *Lond.* 1847. 8vo.

— Marine Steam-Engines of the Royal Navy. (Appendix.) *Tract.* 8vo. vol. 201. *Lond.* 1843. 8vo.

— Observations addressed to those interested in either Railways or Turnpike Roads; showing the comparative expedition, safety, convenience, and public and private economy of these two kinds of road for internal communication. *Tract.* 8vo. vol. 20. *Lond.* 1837. 8vo.

— Observations on Railway Monopolies and remedial measures. *Tract.* 8vo. vol. 79. *Lond.* 1841. 8vo.

- GORDON, A.—*continued*. Past and present views of Railways. *Tract. 8vo. vol. 82. Lond. 1849. 8vo.*
- GORDON, A., and ATHERTON, C. Rapport préliminaire (second rapport) sur les moyens d'améliorer la navigation de la Dyle et de construire un port à Malines, etc. *Tract. 8vo. vol. 75. Malines, 1832, 37. 8vo.*
- GORDON, C. Report on Cattle, Sheep, and Swine, etc. [*U.S.A. 10th Census. Vol. 3.*] *Washington, 1883. 4to.*
- GORDON, E. S. On Fixing Positions by the more simple Astronomical Observations. *Tract. 8vo. vol. 464. Woolwich, 1881. 8vo.*
- GORDON, G. A paper on American and Australian Irrigation, etc. *Tract. 8vo. vol. 417. Melbourne, 1885. 8vo.*
- GORDON, H. A. A Miners' Guide. [*Wellington,*] 1889. 8vo.
- GORDON, J., *Master Mariner*. Steam Navigation between the Cape of Good Hope, St. Helena, Sierra Leone, Pernambuco, etc., and Great Britain. *Tract. 8vo. vol. 201. Lond. 1846. 8vo.*
- GORDON, JAMES E. H. Four Lectures on Static Electric Induction. *Lond. 1879. 8vo.*
- Improvements in Electrical Distribution—Tomlinson's Patents. *Tract. 4to. vol. 115. Lond. [1890?] 4to.*
- A Physical Treatise on Electricity and Magnetism. 2nd edition. 2 vols. *Lond. 1883. 8vo.*
- A practical Treatise on Electric Lighting. *Lond. 1884. 8vo.*
- GORDON, JOSEPH. Address as President of the Association of Municipal and Sanitary Engineers, and Surveyors, at the Annual Meeting. *Tract. 8vo. vol. 445. Leicester, 1887. 8vo.*
- Anlage von Spülkanälen in Stuttgart. *Tract. 8vo. vol. 275. Stuttgart, 1876. 8vo.*
- Erläuterungsbericht zu dem Dispositionsplan über die Anlage von Spülkanälen in Stuttgart. *Tract. 4to. vol. 73. Stuttgart, 1874. 4to.*
- Gutachten . . . über den von Ingenieur J. Gordon ausgearbeiteten Dispositionsplan . . . über die Anlage von Spülkanälen in Stuttgart, etc. 1876. See WÜRTEMBERG.—*Württ. Verein für Baukunde.*
- Bericht über die Canalisation des Schleussengrabens der Stadt Ludwigshafen. *Tract. 8vo. vol. 309. Frankfurt a. M., 1878. 8vo.*
- Die Canalisation der Stadt Dortmund. 1878. See MICHAELIS, R., and GORDON, J.
- Canalisation der Stadt Heilbronn. *Tract. 8vo. vol. 259. Heilbronn, 1876. 8vo.*
- Die Canalisation der Kgl. Haupt- und Residenzstadt München. *München, 1876. 4to.*

- GORDON, JOSEPH—*continued*. Some of the Public Works of Leicester. *Tract. folio. vol. 33.* Leicester, 1884. folio.
- Stenographischer Bericht über das Gutachten des Herrn Ingenieur J. Gordon . . . hinsichtlich der Kanalisationsfrage in Nürnberg. *Tract. 8vo. vol. 275.* [1876.] 8vo.
- See FRANKFURT, on Main. Bau-Amt . . . Bedingungen unter welchen die Entwässerung der Gebäulichkeiten, etc., in die neuen Canäle gestattet wird. [W. Lindley and J. Gordon, Engineers.] 1872.
- GORDON, L. D. B. On the most advantageous use of Steam. *Tract. 8vo. vol. 224.* Glasgow, 1845. 8vo.
- On the Supply of the City of Glasgow with Water from Loch Katrine. *Tract. 8vo. vol. 110.* Lond. 1853. 8vo.
- Railway Economy : an exposition of the advantages of locomotion by locomotive carriages instead of the present expensive system of steam-tugs. *Tract. 8vo. vol. 82.* Edinburgh, 1849. 8vo.
- Report to the committee of the Bedford Level Corporation, and to the Eau Brink commissioners on the Norfolk estuary scheme. Lond. 1849. 8vo.
- A short description of the plans of Captain J. Vetch, R.E., for the Sewerage of the Metropolis. *Tract. folio. vol. 6.* Lond. 1851. folio.
- University of Glasgow. Civil Engineering and Mechanics. Engineering aphorisms and memoranda : a synopsis of lectures to be delivered, Session 1847-48. Glasgow, 1847. 4to.
- University of Glasgow. A Synopsis of Lectures on Civil Engineering and Mechanics. Glasgow, 1849. 4to.
- GORDON, L. D. B., and LIDDEL, C. Exposition of a plan for a Metropolitan Water Supply : showing that the Thames at Maple-Durham is the most eligible source, etc. *Tract. 8vo. vol. 109.* Lond. 1849. 8vo.
- GORDON, Mrs. M. M. The Home Life of Sir David Brewster. 2nd edition. Edinburgh, 1870. 8vo.
- GORDON, R. Burmese Wood-carving. *Tract. folio. vol. 33.* Rangoon, 1882. folio.
- Fragment containing a discussion of a new Formula for the Flow of Water in open Channels. *Tract. folio. vol. 18.* Milan, 1873. folio.
- The Irawadi River. *Tract. 8vo. vol. 376.* Lond. 1885. 8vo.
- Notes on subjects connected with the works in the Irrawaddy Circle, British Burma, etc. *Tract. folio. vol. 42.* Rangoon, 1883. folio.
- On the theory of the Flow of Water in open Channels. *Tract. folio. vol. 21.* Rangoon, 1875. folio.
- Report on the Hydrography of the Irrawaddy River, etc. (Atlas of plates.) Lond. 1879-80. folio.

- GORDON, W., *Lieut., R.N.* The Economy of the Marine Steam Engine, *etc.* *Lond.* 1845. 8vo.
- GORE, G. The Art of Electro-Metallurgy. 8vo. *Lond.* 1877. 8vo.
- Electro-Chemistry: inorganic. 2nd edition. *Lond.* 1888. 8vo.
- GORE, H. Propulsion of Carriages on common Roads by power other than animal power: a short summary of the various parliamentary inquiries, *etc.* *Tract.* 8vo. vol. 227. *Lond.* 1873. 8vo.
- GORE, J. E. A Catalogue of known variable Stars, with notes and observations, *etc.* *Tract.* 8vo. vol. 464. *Dublin,* 1884. 8vo.
- Formulæ for Binary Stars. *Tract.* 8vo. vol. 433. *Lond.* 1886. 8vo.
- A Glossary of Fossil Mammalia, *etc.* *Roorkee,* 1874. 8vo.
- GORMAN, W. A. On improved Appliances for working under Water, or in Irrespirable Gases. *Tract.* 8vo. vol. 475. *(From Proc. Inst. of Mechanical Engineers.) Lond.* 1882. 8vo.
- GORRINGE, H. H. Egyptian Obeliaks. *Lond.* 1885. 4to.
- GOSCHLER, C. Note sur les chemins de fer suisses. *Tract.* 8vo. vol. 221. *Paris,* 1857. 8vo.
- Traité pratique de l'entretien et de l'exploitation des chemins de fer. *Paris,* 1865–68. 8vo.
- GOSLIN, S. B. How to avert or mitigate Famines and droughts. *Tract.* 8vo. vol. 288. *Lond.* 1878. 8vo.
- The Musical Handbell-Ringer's Instructor. Part II. *Tract.* 8vo. vol. 334. *Lond.* 1879. 8vo.
- The Relative Advantages of Wind, Water, and Steam as motive powers, compared with each other. *Tract.* 8vo. vol. 314. *Lond.* 1879. 8vo.
- — [Another edition.] *Tract.* 8vo. vol. 336. *Lond.* 1881. 8vo.
- A Review of the facts and records in connection with Kitchen Boiler Explosions of 1881, *etc.* *Tract.* 8vo. vol. 328. *Lond.* 1881. 8vo.
- What shall we Drink? *Tract.* 8vo. vol. 359. *Ipswich,* 1883. 8vo.
- GOSSAGE, W. A history of the Soda-Manufacture. *Tract.* 8vo. vol. 219. *Liverpool,* 1861. 8vo.
- GOSSELET, J. Leçons sur les nappes aquifères du nord de la France. *Tract.* 8vo. vol. 526. *Lille,* 1888. 8vo.
- GOSSELET, J., and OTHERS. The Geology of Belgium and the French Ardennes. *Lond.* 1885. 8vo.
- GOSSELIN, G. Considérations sur le lancement des projectiles très-lourds. *Tract.* 8vo. vol. 214. *Metz,* 1831. 8vo.
- GOSSI, M. New Patented System of Ventilation by means of compressed Air, *etc.* *Tract.* 8vo. vol. 520. *Antwerp,* [1891?] 8vo.

- GOSTLING, D. E. Suggestions for a comprehensive system of high pressure Water Supply from Tulsi and Vehar Lakes into Bombay, based upon Mr. Pedder's proposals. *Tract. folio. vol. 18.*
Bombay, 1875. folio.
- GOTHARD. See ST. GOTHARD.
- GOTHENBURG.—*Chalmers Tekniska Läröanstalt. Program.*
Göteborg, 1890. 8vo.
- GOTTGETREU, R. Physische und chemische Beschaffenheit der Baumaterialien. 2 vols. in 1. *Berlin, 1880. 8vo.*
- GÖTTINGEN.—*Academia Georgia Augusta. Catalogus prælectionum publice et privatim in Academia Georgia Augusta per semestre hibernum 1795–96 . . . habendarum. 2 pt. Tract. 4to. vol. 26.*
Göttingæ, 1795–96. 4to.
- GOTTLIEB, D. J. Lehrbuch der reinen und technischen Chemie . . . Zweite Auflage. *Braunschweig, 1861. 8vo.*
- GOTTO, E. Metropolitan Sewers: report on Church Lane and Carrier Street, St. Giles's. *Tract. 4to. vol. 49. Lond. 1849. 4to.*
- GOTTSCHALK, E. G. Jahrbuch für das Berg- und Hüttenwesen. See PERIODICAL PUBLICATIONS.
- GOUDAL, —. Exposition universelle de Paris. Documents historiques, statistiques, et techniques sur les vins de France, principalement de la Gironde, et en particulier du premier crû de Château-Lafite. *Tract. 4to. vol. 52.*
Paris, [1855.] 4to.
- GOUDRIAAN, B. H. Kaart van de rivieren de Boven en Neder-Rijn, de Lek en de Nieuwe Maas, van Lobith tot Brielle, in twintig bladen, benevens twee supplementaire bladen voor den Oude-Rijn en voor de Noord. [1840?] folio.
- GOUILLY, A. Transmission de la force motrice par air comprimé ou raréfié. [With a bibliography.] *Paris, [1890?] 8vo.*
- GOUIN, E. Rapport à la commission de surveillance, sur le voyage d'essai de Marseille en Crimée du navire à vapeurs combinées d'eau et d'éther le "Brésil," de la compagnie Arnaud et Touache, système du Trembley. *Tract. folio. vol. 1.*
Marseille, 1855. folio.
- GOUIN, L. See GAUDARD, J. Notice sur l'application de la propulsion pneumatique par l'air comprimé. [With introduction by L. Gouin.] 1869.
- GOULBURN, N.S.W. Report by W. Clark on the Water Supply of Goulburn. *Sydney, 1877. folio.*
- Report . . . relating to the proposed railway from Goulburn to Crookwell. *Sydney, 1889. folio.*
- GOULD, B. A. Defence of Dr. Gould by the scientific council of Dudley observatory. Appendix. 3rd edition. *Tract. 8vo. vol. 129.*
Albany, 1858. 8vo.
- Reply to the "Statement of the Trustees of the Dudley Observatory." *Tract. 8vo. vol. 129.*
Albany, 1859. 8vo.

- GOULD, N. Historical notice of the Commercial Docks, in the parish of Rotherhithe, county of Surrey ; to which is added an account of the Howland great Wet Dock, in the parish of Rotherhithe. *Lond.* 1844. 4to.
- GOULIER, C. M. Études théoriques et pratiques sur les levers topométriques et en particulier sur la tachéométrie. *Paris*, 1892. 8vo.
- GOURCY, C., *Count*. Notes extraites d'un voyage agricole dans l'ouest, le sud-ouest, le midi et le centre de la France, et le nord de l'Espagne. *Tract.* 8vo. vol. 217. *Paris*, 1851. 8vo.
- Voyage agricole en Belgique et dans plusieurs départements de la France, suivi de quelques articles extraits des journaux d'agriculture anglais. *Paris*, 1849. 8vo.
- GOURNERIE, J. DE LA. *See* LA GOURNERIE, J. DE.
- GOURY, G. Souvenirs polytechniques, ou recueil d'observations, mémoires, et projets, concernant la navigation intérieure, les bacs, les dépêchements, les ports maritimes, etc. (Atlas.) 2 vols. in 1. *Paris*, 1827. 4to. and folio.
- GOUX MANURE AND SANITARY COMPANY. On the Sanitary Improvement of Towns and the Utilization of the Refuse. Description of Goux's absorbent Closet System. *Tract.* 4to. vol. 66. *Lond.* 1872. 4to.
- GOWEN, F. B. Argument . . . before the joint committee of the Legislature of Pennsylvania appointed to inquire into the affairs of the Philadelphia and Reading Coal and Iron Company and the Philadelphia and Reading Railroad Company. *Tract.* 8vo. vol. 253. *Philadelphia*, 1875. 8vo.
- GOWER, C. F. The Sewage Screening Machine. *Tract.* 8vo. vol. 483. *Lond.* 1889. 8vo.
- The Transmission of Sewage Sludge to the Land : with special reference to the Metropolis. *Tract.* 8vo. vol. 490. *Lond.* 1890. 8vo.
- GOWER, R. H. Description of a Life-Boat, built by subscription at Ipswich and stationed at Landguard Fort, etc. *Tract.* 8vo. vol. 504. (From the Philosophical Magazine.) [*Lond.* 1822.] 8vo.
- GRAÇA, J. C. DA. Breve noticia historica do desenvolvimento da siderurgia e estatistica de algumas fabricas da Europa. *Tract.* folio. vol. 32. *Bio de Janeiro*, 1883. folio.
- Relatorio dos estudos mineralogicos e geologicos da provincia de S. Pedro do Rio Grande do Sul. *Tract.* 8vo. vol. 360. *Bio de Janeiro*, 1883. 8vo.
- GRACEY, —, *Lieut., R.E.* Lectures on the Resistance of Iron Plates to impact. *Tract.* 8vo. vol. 243. *Chatham*, 1863. 8vo.
- GRAEFF, M. Appareil et construction des ponts biaux. 2^{me} édition. *Paris*, 1867. 4to.
- Construction des canaux et des chemins de fer. Histoire critique des travaux exécutés dans les Vosges au chemin de fer de Paris à Strasbourg et au canal de la Marne au Rhin. (Atlas of plates.) *Paris*, 1861. 8vo. and 4to.

GRAEFF, M.—*continued*. Mémoires sur le mouvement des eaux dans les réservoirs à alimentation variable, et sur l'action que la digue de Pinay exerce sur les crues de la Loire à Roanne.

Paris, 1873. 4to.

— Traité d'hydraulique, précédé d'une introduction sur les principes généraux de la mécanique. 3 vols. Paris, 1882–83. 4to.

GRAEFF, M., and DELOCHE, E. Papers on Dams of Masonry for large Reservoirs. [*Records of the Bombay Govt.* No. 9.]

Bombay, 1869. 8vo.

GRAETZ, Dr. L. Die Elektrizität und ihre Anwendungen zur Beleuchtung, Kraftübertragung, Metallurgie, Telephonie und Telegraphie.

Stuttgart, 1883. 8vo.

GRAFFIGNY, H. DE. La navigation aérienne et les ballons dirigeables.

Paris, 1888. 8vo.

GRAFTON. Report . . . relating to the proposed Railway from Grafton to the Tweed.

Sydney, 1890. folio.

GRAHAM, A. J. S. A Manual on Earthwork.

Lond. 1863. 12mo.

GRAHAM, C. K., *Gen., U.S.A.* Report of Gen. C. K. Graham, engineer in chief of the department of docks for the year terminating April 30, 1875. *Tract.* 8vo. vol. 251.

New York, 1875. 8vo.

GRAHAM, D. A. A Treatise on the comparative commercial values of Gas-coals, and Cannels.

Lond. 1882. 8vo.

GRAHAM, G., *Lieut.-Col., B.E.* Lectures. The Principles of Reserved Defence applied to detached forts. *Tract.* 8vo. vol. 243.

Chatham, 1864. 8vo.

GRAHAM, GEORGE, *F.R.S., Watchmaker.* A contrivance to avoid the Irregularities in a Clock's Motion, occasioned by the action of heat and cold upon the rod of the pendulum. *Tract.* 8vo. vol. 41.

(From Phil. Trans.)

Lond. 1726. 4to.

GRAHAM, GEORGE, *Engineer.* The Caledonian Railway: account of its origin and completion, etc.

Glasgow, 1888. 8vo.

GRAHAM, H. H. On the Progress and Work of the Institute of Patent Agents. *Tract.* 8vo. vol. 493.

Lond. 1890. 8vo.

GRAHAM, J. C. An Elementary Treatise on Steam, and the use of the Indicator.

Lond. 1877. 8vo.

GRAHAM, J. D., *Colonel, U.S. Army.* Annual report for the year 1859 on the improvement of the harbors of lakes Michigan, St. Clair, Erie, Ontario, and Champlain. *Tract.* 8vo. vol. 135.

Washington, 1859. 8vo.

— A lunar Tidal Wave in the North American lakes. *Tract.* 8vo. vol. 122.

Cambridge, U.S., 1861. 8vo.

(From Proc. American Association.)

— Map of Chicago.

Chicago, 1858. folio.

- GRAHAM, J. D., *Colonel, U.S. Army—continued.* Map of Chicago Harbor and Bar, Illinois. *Chicago, 1857. 4to.*
- Report in relation to the intersection of the Boundary Lines of the States of Maryland, Pennsylvania, and Delaware, being a portion of Mason and Dixon's line. 2nd edition. *Tract. 8vo. vol. 141. Chicago, 1862. 8vo.*
- GRAHAM, R. H. Graphic and Analytic Statics in theory and comparison : to which is added a chapter on Wind Pressure. *Lond. 1883. 8vo.*
- GRAHAM, T. Chemical Reports and Memoirs ; on atomic volume, isomorphism, endosmosis, the simultaneous contrast of colours, the latent heat of steam at different pressures, the artificial formation of alkaloids, and volcanic phenomena. [*Cavendish Society.*] *Lond. 1848. 8vo.*
- GRAHAM, T., and WATTS, H. Elements of Chemistry : including the application of the science in the arts. 2nd edition. 2 vols. *Lond. 1850-58. 8vo.*
- GRAHAME, JAMES, *Advocate.* Answer to a pamphlet entitled "Observations on the report of Mr. H. Baird, C.E., relative to the proposed Union canal," etc. *Tract. 8vo. vol. 7. Edinburgh, 1814. 8vo.*
- GRAHAME, JAMES, *Chartered Accountant.* A digest of the Opinion of Parliament on the Powers and Management of Railways and Canals. *Tract. folio. vol. 38. Glasgow, 1886. folio.*
- GRAHAME, T. Correspondence between the Board of Trade and T. Grahame on Railway and Canal Combination. *Tract. 8vo. vol. 116. Lond. 1852. 8vo.*
- Description of a plan for passing the Clivities on Canals, with little or almost no expenditure of water. *Tract. 4to. vol. 1. Glasgow, 1836. 4to.*
- Essays and letters on subjects conducive to the Improvement and Extension of Inland Communication and transport. *Tract. 4to. vol. 1. Lond. 1835. 4to.*
- A Letter addressed to N. Wood, Esq., on that portion of his Treatise on Railroads, entitled, "Comparative performances of Motive Power on Canals and Railroads." *Tract. 8vo. vol. 4. Glasgow, 1831. 8vo.*
- A Letter addressed to the Proprietors and Managers of Canals and Navigable Rivers, on a method for tracking and drawing vessels by a locomotive engine boat, etc. *Tract. 8vo. vol. 9. Lond. 1825. 8vo.*
- A Letter on the present system of Legislation which regulates Internal Intercourse in Great Britain, etc. *Tract. 4to. vol. 1. Lond. 1836. 4to.*
- A Letter to the Traders and Carriers on the Navigations connecting Liverpool and Manchester, showing the means they possess of competing with the railway, etc. *Tract. 4to. vol. 1. Glasgow, 1833. 4to.*

- GRAHAME, T.—*continued*. A Treatise on Internal Intercourse and Communication in civilised states, and particularly in Great Britain. *Tract*. 8vo. vol. 23. *Lond.* 1834. 8vo.
- GRAHAM-SMITH, C. Address on the Education of a Civil Engineer, *etc.* *Tract*. 8vo. vol. 454. *Lond.* 1876. 8vo.
- GRAHN, E. Die Art der Wasserversorgung der Städte des deutschen Reiches mit mehr als 5,000 Einwohnern, *etc.* *München*, 1883. 4to.
- Die städtische Wasserversorgung. 1 Band. Statistik. *München*, 1878. 8vo.
- GRAHN, E., and MEYER, F. A. Reisebericht über künstliche centrale Sandfiltration. *Hamburg*, 1877. 8vo.
- GRAINGER, T. Address on the desirableness of obtaining Communications relative to the construction and details of Engineering and other Public Works, accompanied by the necessary models and drawings. *Tract*. 8vo. vol. 97. [*Edinburgh*,] 1849. 8vo.
- GRAINGER, T., and MILLER, J. Report and estimate of the probable Expense of the proposed Extension of the Garnkirk and Glasgow Railway to Port Dundas. *Tract*. 4to. vol. 36. *Edinburgh*, 1828. 4to.
- Report of a Survey undertaken for the purpose of ascertaining the line by which the best Road from the city of Glasgow to Ayrshire (near Flockside), is to be obtained, *etc.* *Tract*. 4to. vol. 35. *Edinburgh*, 1829. 4to.
- Report relative to the formation of a Harbour and Dock in Trinity Bay, on the south shore of the Firth of Forth, *etc.* *Tract*. 4to. vol. 34. *Edinburgh*, 1834. 4to.
- Report relative to the proposed Railway, to connect the Clydesdale, or upper coal-field of Lanarkshire, with the city of Glasgow, and the east and west country markets. *Tract*. 4to. vol. 36. *Edinburgh*, 1828. 4to.
- Reports on Edinburgh, Glasgow and Leith Railway, 1831. *See* EDINBURGH, GLASGOW AND LEITH RAILWAY.
- GRAND CANAL, *Ireland*. Report of the Directors. *Tract*. 8vo. vol. 98. *Dublin*, 1816. 8vo.
- GRAND COLLIER DOCKS, *Rotherhithe*. Prospectus. *Tract*. folio. vol. 49. *Lond.* 1837. folio.
- GRAND JUNCTION CANAL. Act for making a . . . Canal from the Oxford Canal Navigation at Braunston to join the River Thames at . . . Brentford, *etc.* *Lond.* 1793. folio.
- Act for making certain navigable Cuts from Buckingham, Aylesbury, and Wendover, to communicate with the Grand Junction Canal, *etc.* *Lond.* 1794. folio.
- Acts for authorizing the Company . . . to vary the Course of a part of the Canal in the County of Hertford . . . and for amending the Acts relating to the said Canal. *Lond.* 1795, 1818. folio.

- GRAND JUNCTION CANAL.**—*continued.* Act for enabling the Company . . . more effectually to provide for the Discharge of their Debts, *etc.* *Lond.* 1801. folio.
- Act for empowering the Company . . . to raise a further sum of Money to complete the Works, *etc.* *Lond.* 1803. folio.
- Act for . . . amending the Powers of certain Acts for making the Grand Junction Canal. *Lond.* 1805, 1812. folio.
- Act for confirming and carrying into execution certain Articles of Agreement, made by John, Lord Bishop of London . . . [and others] and the Company of Proprietors of the Grand Junction Canal [relative to the proposed exchange and lease of certain lands at Paddington]. *Lond.* 1812. folio.
- A Bill intituled An Act to confirm a Provisional Order made by the Board of Trade . . . containing the Classification of Merchandise Traffic, and the schedule of maximum tolls, *etc.* *Lond.* 1893. folio.
- A Bill [as amended by the Joint Committee of Lords and Commons] to confirm a Provisional Order . . . containing the Classification of Merchandise Traffic, *etc.* *Lond.* 1893. folio.
- Remarks on the Tonnage Rates and drawbacks of the Grand Junction Canal, with observations on the proposed London and Birmingham Canal. By Mercator. *Tract.* 8vo. vol. 66. *Birmingham,* 1836. 8vo.
- Report of the Committee. *Tract.* 8vo. vols. 5 and 64. *Lond.* 1804, 05. 8vo.
- Report of the Select Committee on the Grand Junction Canal (Branch Canal to Slough) Bill. *Lond.* 1879. folio.
- Reports, Nos. 48 and 49. [*MS.*] *Tract.* 4to. vol. 66. 1810, 11. 4to.
- GRAND JUNCTION RAILWAY.** Bill (as amended) for making a Railway from the Warrington and Newton Railway at Warrington to Birmingham. *Lond.* 1833. folio.
- GRAND JUNCTION WATERWORKS.** An Act for enabling the . . . Company to obtain a Supply of Water from the Thames at Hampton, *etc.* *Lond.* 1852. folio.
- The Dolphin ; or, Grand Junction nuisance : proving that seven thousand families in Westminster and its suburbs, are supplied with water, in a state offensive to the sight, disgusting to the imagination, and destructive to health. *Tract.* 8vo. vol. 78. *Lond.* 1827. 8vo.
- GRAND SURREY CANAL.** Act to enable the Company of Proprietors of the Grand Surrey Canal to complete the same. *Lond.* 1807. folio.
- Act to enable the Company . . . to supply with Water the several Towns, Districts and Places therein mentioned, and to amend the Acts relating to the Canal. *Lond.* 1808. folio.

- GRAND SURREY CANAL.**—*continued.* Act to enable the Company . . . to make a Cut communicating with Rotherhithe and to complete the Canal, and for amending the Acts relating thereto. *Lond.* 1811. folio.
- GRAND TRUNK RAILWAY COMPANY OF CANADA.** Reports of Sir C. P. Roney, Mr. A. M. Ross, Mr. S. P. Bidder, to the London Board of Directors of the Grand Trunk Railway Company of Canada. *Tract. 8vo. vol.* 104. *Lond.* 1855. 8vo.
- Report of the London directors : with reports of T. E. Blackwell, W. Shanly, and W. S. Mackenzie. *Tract. 8vo. vol.* 123. *Lond.* 1860. 8vo.
- Report of the London directors . . . with the accounts of the company for half-year ending June 29, 1861, and report of Mr. Edward Watkin. *Tract. 8vo. vol.* 179. *Lond.* 1861. 8vo.
- Verbatim report of the proceedings at the meeting of the . . . Company held at the Cannon Street Hotel, *etc.* *Tract. 8vo. vol.* 435. *Lond.* 1877. 8vo.
- GRAND UNION CANAL.** Act for making a . . . Canal from the Union Canal in Gumley to join the Grand Junction Canal near Long Buckley, *etc.* *Lond.* 1810. folio.
- GRAND VICTORIAN NORTH WESTERN CANAL COMPANY.** Prospectus. *Tract. folio. vol.* 14. *Melbourne,* [.] folio.
- GRAND WESTERN CANAL.** Act for making a . . . Canal from the River Exe near Topsham . . . to the River Tone near Taunton, and for cleansing and making navigable a portion of the Tone, and for making certain Cuts from the said Canal. *Lond.* 1796. folio.
- Act to vary the Line of a Cut authorized by the Act [of 1796]. *Lond.* 1811. folio.
- Act to alter and increase the Rates of Tonnage . . . and to amend the several Acts for making the Canal. *Lond.* 1812. folio.
- GRANDGUILLOT, A.** Les joujoux de M. Cobden. *Tract. 8vo. vol.* 180. *Paris,* [1867 ?] 8vo.
- GRANDIS, S.** Éclisses en dessous pour les chemins de fer servant à consolider les joints des rails et à former des voies entièrement métalliques. *Tract. 8vo. vol.* 117. *Paris,* 1859. 8vo.
- GRANDY, R. E.** The Timber Importer's . . . and Builder's standard guide. *Lond.* 1865. 8vo.
- GRANFELD, A. E.** Die Mehrfach-Telegraphie auf einem Drahte. *Vienna,* 1884. 8vo.
- GRANGEZ, E.** Précis historique et statistique des voies navigables de la France et d'une partie de la Belgique. *Paris,* 1855. 8vo.
- GRANIER, E.** What is Money? *Tract. 8vo. vol.* 513. *Denver,* 1892. 8vo.
- GRANT, A.** Reply to Sir E. Watkin's Circular to the proprietors of the East London Railway Company. *Tract. 8vo. vol.* 294. *Lond.* 1878. 8vo.

- GRANT, C. W. *Bombay Cotton and Indian Railways.*
Lond. 1850. 8vo.
- On the use of the "Torpedo" and the "Ram" in resisting invasion: or, the "Battle of the Boats." *Tract.* 8vo. vol. 271.
Lond. 1877. 8vo.
- GRANT, D. Report from the Select Committee on the petition of Donald Grant respecting his Patent for Ventilation.
Lond. 1848. folio.
- GRANT, G. M. *Ocean to ocean: Sandford Fleming's expedition through Canada in 1872.*
Lond. 1873. 8vo.
- *Picturesque Canada.* 2 vols. *Toronto*, [1885?] 4to.
- GRANT, J. Experiments on the strength of Cement, chiefly in reference to the Portland Cement used in the southern main drainage works.
(From Min. Proc. Inst. C.E.) Lond. 1875. 8vo.
- Observations . . . upon Mr. Bazalgette's Remarks on the reports of engineers of districts upon their examination of Pipe Sewers.
Tract. 8vo. vol. 108. [1855.] 8vo.
- GRANT, R. Catalogue of 6,415 Stars, for the epoch 1870: deduced from observations made at the Glasgow University Observatory, 1860 to 1881. [With an account of the Observatory.]
Glasgow, 1893. 4to.
- History of Physical Astronomy . . . comprehending a detailed account of the theory of Gravitation by Newton, *etc.*
Lond. 1852. 8vo.
- GRANT, W. The circular and standing orders of the Department of Public Works from 1833 to 8th July 1857, *etc.*
Madras, 1857. 8vo.
- GRANT-FRANCIS, G., *Col.* Further improvements in Swansea.
Tract. 8vo. vol. 236. *Swansea*, 1874. 8vo.
- The Smelting of Copper in the Swansea District, from the time of Elizabeth to the present day. *Swansea*, 1867. 8vo.
- — 2nd edition. *Lond.* 1881. 8vo.
- GRANTHAM, J. Plan of the Croydon Canal and Railway.
Croydon, 1811. folio.
- GRANTHAM, JAMES, *Capt., R.E.* Map of the colony of Natal, surveyed in 1861.
Lond. 1863. folio.
- GRANTHAM, JOHN. Improvements in working the Liverpool docks High Level Railway for goods and passengers. *Tract.* 8vo. vol. 102.
Liverpool, 1853. 8vo.
- Iron as a material for Ship-building. *Liverpool*, 1842. 8vo.
- Iron Ship-building: with practical illustrations. (Atlas of plates.)
Lond. 1858. 8vo. and 4to.
- — 5th edition, with supplement, *etc.* (Atlas of plates.)
Lond. 1868. 8vo. and 4to.

- GRANTHAM, JOHN**—*continued*. On the protection of the Bottoms of Iron Ships from concussions and from foulings, *etc.* *Tract.* 8vo. vol. 155. [Lond. 1862.] 8vo.
- Railways within the borough of Liverpool, *etc.* *Tract.* 8vo. vol. 117. *Liverpool*, 1856. 8vo.
- Steam Car for Tramways. *Tract.* 8vo. vol. 234. *Lond.* 1874. 8vo.
- The traveller's map of the river Shannon, *etc.* *Dublin*, 1830. folio.
- GRANTHAM, R.** A description of the works for reclaiming and making part of the late forest of Delamere, in the county of Cheshire. *Tract.* 8vo. vol. 198. *Lond.* 1864. 8vo.
(From the Journal of the Royal Agricultural Society.)
- Report on the floods in Somersetshire in 1872–73. *Tract.* folio. vol. 21. *Lond.* 1873. folio.
- GRANTHAM, R. B.** "The Land Drainage Act, 1861;" its provisions, working, and results. *Tract.* 8vo. vol. 156. *Lond.* 1865. 8vo.
(From the Bath and West of England Agricultural Journal.)
- On Water Supply for Country Mansions. *Tract.* 4to. vol. 76. *Lond.* 1874. 4to.
- Plan of the Islington Cattle Market, with the proposed additions. *Tract.* 4to. vol. 39. 2nd edition. *Lond.* 1850. 4to.
- A Treatise on Public Slaughter-Houses, *etc.* *Lond.* 1848. 8vo.
- GRANTHAM, R. F.** The disposal of the Sewage of London upon the Maplin Sands. *Tract.* 8vo. vol. 496. *Lond.* 1890. 8vo.
- Drainage and Irrigation of Land in their Relations to Health. *Tract.* 8vo. vol. 514. *Lond.* 1891. 8vo.
- Notes on Water Supply. *Tract.* 8vo. vol. 490. *Lond.* 1890. 8vo.
- The Sewerage of the Town of Maldon, Essex. *Tract.* 8vo. vol. 511. *Lond.* [1891.] 8vo.
- GRANTHAM CANAL.** Act for making . . . a Canal from Grant-ham to the River Trent, near Nottingham Trent Bridge, *etc.* *Lond.* 1793. folio.
- Act for enabling the Proprietors of the Canal to finish . . . the same, and for amending the Act [of 1793]. *Lond.* 1797. folio.
- GRASHOF, F.** An die verehrlichen Lehrercollegien der deutschen technischen Hochschulen. [Address.] *Tract.* 4to. vol. 111. *Carlsruhe*, 1867. 4to.
- Theoretische Maschinenlehre. 3 vols. *Leipzig*, 1879–90. 8vo.
- Theorie der Kraftmaschinen. *Hamburg*, 1886. 8vo.
- GRASSE, J. G. T.** Guide de l'amateur de porcelaines et de poteries : ou collection complète de fabriques de porcelaines et de poteries de l'Europe et de l'Asie. 3^{me} édition. *Tract.* 8vo. vol. 266. *Dresde*, 1872. 8vo.

- GRAUNT, J. Natural and political Observations . . . upon the Bills of Mortality . . . with reference to the Government, Religion, Trade, Growth, Air, Diseases, and the several changes of the said City [of London]. 5th edition, enlarged. *Lond.* 1676. 8vo.
- GRAVATT, W. A Letter to the shareholders of the Bristol and Exeter Railway. *Tract.* 8vo. vol. 79. *Lond.* 1841. 8vo.
- A Letter on Steam Gunboats of shallow draught and high speed. *Tract.* 8vo. vol. 153. *Lond.* 1854. 8vo.
- Mountain Barometer Tables; calculated and stereoglyphed by Messrs. Scheutz's calculating machine No. 2, and printed by machinery. *Lond.* 1859. 8vo.
- On the Atlantic Cable. *Tract.* 8vo. vol. 127. *Lond.* 1858. 8vo.
(From the Philosophical Magazine.)
- GRAVELINES. Notice hydrographique et géographique, historique, technique et statistique: par A. Plocq. *Paris*, 1873. 8vo.
- Reconstruction de l'écluse Vauban et travaux accessoires concernant le bassin intermédiaire et le chenal de la Tuerie: par A. Plocq. *Paris*, 1872. 8vo.
- GRAVELL, D. Continuous Brakes. *Tract.* 8vo. vol. 427. *Lond.* 1886. 8vo.
- Reservoir Dams. *Tract.* 8vo. vol. 447. *Lond.* 1887. 8vo.
- GRAVES, Rev. C. Abstract of a paper on Algebraic Triplets, and their geometric interpretation. *Tract.* 8vo. vol. 189.
(From the Proc. Royal Irish Academy.) *Dublin*, 1845. 8vo.
- GRAVES, H. G. A contribution to the History of Fire-damp. *Tract.* 8vo. vol. 525. *Lond.* 1893. 8vo.
- GRAVES, S. R. Railway Amalgamations . . . Speech, etc. *Tract.* 8vo. vol. . . *Westminster*, 1872. 8vo.
- GRAVESANDE, W. J. Mathematical Elements of Natural Philosophy; translated from the Latin by Dr. J. T. Desaguliers. 6th edition. 2 vols. *Lond.* 1747. 4to.
- GRAVESEND. An Act for incorporating the Gravesend and Milton Waterworks Company, and for more effectually supplying the inhabitants of . . . Gravesend and Milton-next-Gravesend and . . . Northfleet . . . with Water. *Lond.* 1846. folio.
- A Bill for amending an Act for rebuilding . . . the Town Quay of Gravesend . . . and for building a Pier adjoining thereto, etc. *Lond.* 1833. folio.
- Report on an Explosion at the War Rocket Factory, Gravesend. By Major V. D. Majendie. *Lond.* 1878. folio.
- GRAY, ANDREW. The experienced Millwright; or, a treatise on the construction of machines, etc. *Edinburgh*, 1804. folio.
- — 2nd edition. *Edinburgh*, 1806. folio.
- The Plough-wright's Assistant; or, a practical treatise on various implements employed in agriculture. *Edinburgh*, 1808. 8vo.

- GRAY, ANDREW, *M.A., Prof. of Physics*. The Theory and Practice of Absolute Measurements in Electricity and Magnetism. 2 vols. *Lond.* 1888-93. 8vo.
- GRAY, J. Improvements in Steam Engines. *Tract. 8vo. vol. 62.* *Hull*, 1841. 8vo.
- Observations on house and general Sewerage, and on an improved plan for cleansing and ventilating house drains, *etc.* *Tract. 8vo. vol. 106.* *Dublin*, 1855. 8vo.
- Reflections on Inland Navigation; and a proposal for executing the intended navigation betwixt the Forth and the Clyde. *Lond.* 1768. 8vo.
- GRAY, J. M. Nominal Horse-Power. *Tract. 8vo. vol. 225.* [*Lond.*] 1872. 8vo.
- GRAY, J. W., and SON. Lightning: its destructive action on buildings and the necessity of a proper system of conductors, *etc.* *Tract. 8vo. vol. 248.* *Lond.* [1873?] 8vo.
- GRAY, R. A. [Collection of Reports to the Commissioners on the Drainage and Improvement of the Lands in various districts, chiefly in the counties of Kildare and Westmeath.] *Dublin*, 1846-50. 8vo.
- GRAY, S. M. Proposed plan for a Sewerage System and for the disposal of the sewage of the City of Providence. *Providence*, 1884. 8vo.
- Report on the extension of the Water Supply of Toronto, 1889. *See* HERING, R., and GRAY, S. M.
- GRAY, T. Observations on a general Iron Railway, or land steam-conveyance; to supersede the necessity of horses in all public vehicles. 5th edition. *Tract. 8vo. vol. 393.* *Lond.* 1825. 8vo.
- GRAY, THOMAS. Regulations for preventing Collisions at Sea, *etc.* *Tract. 8vo. vol. 161.* *Lond.* 1867. 8vo.
- (Privately printed.)
- GRAYDON, G. A description of a new instrument or Celestial Compass, adapted for ascertaining the latitude and longitude at sea, by means of the declination and right ascension of the heavenly bodies; for finding the deviation of the magnetic needle by simple inspection, in any part of the world; as also for taking bearings and surveying without magnetic aid. *Tract. 8vo. vol. 29.* *Lond.* 1825. 8vo.
- GRAYS, *Essex*. The Water-Springs at Grays; their capability of affording a supply of pure water to the metropolis. *Tract. 8vo. vol. 378.* *Lond.* 1860. 8vo.
- GREAT BRIDGE, *Staffs.* Report on a Boiler Explosion at Burrows and Burrows' Blue Brick Works. *Lond.* 1882. folio.
- GREAT CENTRAL GAS CONSUMERS' COMPANY. Report of the Proceedings before the Committee of the House of Commons on the Bill of the . . . Company. *Tract. 8vo. vol. 389.* *Lond.* 1850. 8vo.

GREAT CENTRAL GAS CONSUMERS' COMPANY—*continued.*

Report of the Proceedings on the arbitration between A. A. Croll and the . . . Company. *Tract. 8vo. vol. 389.*

Lond. 1857. 8vo.

GREAT EASTERN RAILWAY. Act for making a Railway from London to Norwich and Yarmouth, by Romford, Chelmsford, Colchester, and Ipswich, to be called "The Eastern Counties Railway."
Lond. 1836. folio.

— Eastern Counties Railway. Poll for Directors: half yearly general meeting, 29th February, 1856. *Tract. 8vo. vol. 118.*

Lond. 1856. 8vo.

— Great Eastern Railway Rates and Charges Provisional Order.

Lond. 1891. folio.

— Letters to the Shareholders. *Tract. 8vo. vol.*

Lond. 1866. 8vo.

— Official Guide, *etc.*

Lond. 1892. 8vo.

— Poll for directors . . . 29th Feb. 1856. *Tract. 8vo. vol. 118.*

Lond. 1856. 8vo.

— [Prospectuses, maps, *etc.*, relating to the Eastern Counties Railway.] *Tract. 8vo. vol. 228.*

1834. 8vo.

— Report of the Committee of Investigation, *etc.* *Tract. 8vo. vol. 89, and folio. vol. 25.*

Lond. 1849, 55. 8vo. and folio.

— Observations of the Investigation Committee on Mr. Waddington's Answer to the report adopted . . . on Dec. 7, 1855. *Tract. 4to. vol. 81.*

Lond. 1856. 4to.

— The Chairman's final Answer to the Report and Observations of the Committee of Investigation. *Tract. 4to. vol. 81.*

Lond. 1856. folio.

— Report of the Directors.

Lond. 1889, etc. 8vo.

— [Minutes of Evidence before the] Select Committee on the Great Eastern Railway Bill.

Lond. 1887. folio.

— Statement of the Board of Directors in reference to the Great Eastern Northern Junction Railway Bill, *etc.* *Tract. 8vo. vol. 146.*

Lond. 1864. 8vo.

GREAT FENTON COLLIERY. Report on Explosion, April 8th, 1885.

Lond. 1885. folio.

GREAT GRIMSBY. A Description of the new Docks at Great Grimsby, *etc.* *Tract. 8vo. vol. 169.*

Manchester, [1852.] 8vo.

— Plan of Grimsby. *Tract. 4to. vol. 109.*

Lond. 1880. 4to.

GREAT LEINSTER AND MUNSTER RAILWAY. Act for maintaining a railway from Dublin to Kilkenny, *etc.*

Lond. 1837. folio.

GREAT NORTHERN RAILWAY. Great Northern Railway Rates and Charges Provisional Order.

Lond. 1891. folio.

GREAT NORTHERN RAILWAY—continued. Half-yearly Report.
No. 186, *etc.* *Lond.* 1889, *etc.* folio.

— Reports . . . from the Select Committee on the Caledonian Railway (Conversion of Stock) Bill, the Great Northern Railway (Capital) Bill, *etc.* *Lond.* 1890. folio.

— Specifications for Railway Carriages and Locomotives.
Lond. 1880–82. folio.

GREAT NORTHERN RAILWAY OF IRELAND. Report . . .
upon the . . . Death of a Fireman in the Company's service, and
also upon the Hours of Labour of the Company's Servants, *etc.*
Lond. 1894. folio.

GREAT WESTERN COLLIERY. Reports . . . on a Disaster at
the Great Western (Rhondda Valley) Colliery on 11th April,
1893, *etc.* *Lond.* 1893. folio.

GREAT WESTERN RAILWAY. The Broad and Narrow Gauges :
remarks on the trial trip on the Great Western Railway. *Tract.*
8vo. vol. 461. *Lond.* [1846 ?] 8vo.

— The Broad Gauge the Bane of the Great Western Railway
Company, with an account of the present and prospective liabilities
saddled on the proprietors by the promoters of that peculiar
crotchet. By E. s. d. 7th edition. *Tract.* 8vo. vol. 461.
Lond. 1846. 8vo.

— Extracts from the Minutes of Evidence given before the Com-
mittee of the House of Commons, on the Great Western Railway
Bill. *Tract.* 8vo. vol. 60. *Bristol*, 1834. 8vo.

— Great Western Railway Rates and Charges Provisional Order.
Lond. 1891. folio.

— A letter to the Directors of the Great Western Railway Com-
pany, showing the public evils and troubles attendant upon their
Break of Gauge, and pointing out the remedy. By an Old
Carrier. *Tract.* 8vo. vol. 60. *Manchester*, 1846. 8vo.

— A Letter to the shareholders of the Great Western Railway : by
a proprietor. *Tract.* 8vo. vol. 416. *Lond.* 1838. 8vo.

— Minutes of evidence taken before the Lords' Committee from
June 19 to August 24, 1835. 2 vols. *Lond.* 1835. folio.

— Official Guide . . . New and revised edition, *etc.*
Lond. 1893. 8vo.

— Plan (Section) of the proposed Great Western Railway, with
branches to Bradford and Trowbridge, 1835. [1835.] folio.

— Reply to "Observations" of the Great Western Railway Company
on the report of the Gauge Commissioners. *Tract.* 8vo. vol. 461.
Lond. 1846. 8vo.

— Reports and Correspondence relative to the Great Western
Railway and the Wednesbury Coal Mines. *Lond.* 1875. folio.

GREAT YARMOUTH. Great Yarmouth Haven Bridge and Navi-
gation Improvement. Specification. *Lond.* 1849. folio.

- GREATHEAD, H. Report on Mr. Greathead's Lifeboat.
Lond. 1802. folio.
- GREATHEAD, J. H. The Injector Hydrant for Fire Extinction,
etc. Tract. 4to. vol. 110. Lond. 1883. 4to.
- GREATHEAD, W. H., *Lieut., R.E.* Report on the Drainage of the
city of Delhi, *etc. Tract. folio. vol. 6. Agra, 1852. folio.*
- GREBENAU, H. Die internationale Rheinstrommessung bei Basel,
etc. München, 1873. 4to.
- GREELEY, S. S. Pavements for City Streets. *Tract. 8vo. vol. 330.*
Chicago, 1881. 8vo.
- GREELY, A. W. Isothermal Lines of the United States, 1871–80.
[Professional papers of the Signal Service, No. 2.]
Washington, 1881. 4to.
- GREEN, A. H., and RUSSELL, R. The Geology of the Yorkshire
Coalfield. *[Memoirs of the Geological Survey.]*
Lond. 1878. 8vo.
- GREEN, B. The Arched Timber Viaducts on the Newcastle and
North Shields Railway : and the further application of the System
to Skew and other Bridges, and to the Roofs of large buildings.
Tract. 8vo. vol. 499. Lond. 1846. 8vo.
(From Min. Proc. Inst. C.E.)
- GREEN, C. F. Light Railways or remunerative Railways for thinly
populated districts. *Tract. 8vo. vol. 404. Dublin, 1882. 8vo.*
- GREEN, J. Account of the recent improvements in the Drainage
and Sewerage of Bristol. *Tract. 8vo. vol. 498.*
(From Min. Proc. Inst. C.E.) Lond. 1848. 8vo.
- Reports on the Drainage and Sewerage of Bristol. *Tract. 8vo.*
vol. 96. Lond. 1848. 8vo.
- See DE LA GARDE, P. C. Memoir of the Canal of Exeter . . .
With a continuation by J. Green. 1845.
- GREENAWAY, T., *Lt.-Col.* Farming in India. *Lond. 1864. 8vo.*
- GREENBANK, H., and PIGOT, T. F. Metrical Earthwork Tables,
for finding the contents of earthworks, &c., when the mètre is the
unit of measure employed. *Westminster, 1866. 4to.*
- GREENE, C. E. Graphical analysis of Roof Trusses.
Chicago, 1876. 8vo.
- Graphical method for the analysis of Bridge Trusses ; extended
to continuous girders and draw spans. *New York, 1875. 8vo.*
- Trusses and arches analysed and discussed by graphical methods.
3 vols. *New York, 1884–90. 8vo.*
- GREENE, F. V. Roads and Road-making. *Tract. folio. vol. 45.*
(From "Harper's Weekly.") New York, 1889. folio.
- GREENER, W. Gunnery in 1858 : being a treatise on rifles, cannon,
and sporting arms. *Lond. 1858. 8vo.*

- GREENER, W.—*continued*. The Gun ; or, a treatise on the various descriptions of small fire-arms. *Sunderland*, 1835. 8vo.
- The Science of Gunnery, as applied to the use and construction of fire-arms. *Newcastle*, 1841. 8vo.
- GREENHILL, A. G. The Applications of Elliptic Functions. *Lond.* 1892. 8vo.
- The Calculation of Trajectories in direct and curved fire. *Tract.* 8vo. vol. 465. *Woolwich*, 1884. 8vo.
- Differential and Integral Calculus . . . 2nd edition. *Lond.* 1891. 8vo.
- Notes on Dynamics, for the senior class of Artillery Officers. *Lond.* [1893.] folio.
- A treatise on Hydrostatics. *Lond.* 1894. 8vo.
- GREENHOW, C. H. An exposition of the danger and deficiencies of the present mode of Railway Construction, etc. *Tract.* 8vo. vol. 228. *Lond.* 1846. 8vo.
- GREENLAW, C. B. A reply to Mr. Crawford's observations on Steam Communication between India and Suez. *Tract.* 8vo. vol. 382. *Calcutta*, 1834. 8vo.
- GREENLEAF, J. L. Report on the Water Power of the Mississippi River and some of its Tributaries. [*U.S.A.* 10th Census. Vol. 17 (Part 2).] *Washington*, 1887. 4to.
- Report on the Water Power of the North-west. [*U.S.A.* 10th Census. Vol. 17 (Part 2).] *Washington*, 1887. 4to.
- Report on the Water powers of the Drainage Basins of Lakes Huron and Erie, in the United States, with Report on the Water power of the Niagara River. [*U.S.A.* 10th Census. Vol. 16 (Part 1).] *Washington*, 1885. 4to.
- GREENOCK. Proposed Greenock Harbour, and other improvements. By Alpha. *Tract.* folio. vol. 11. 1868. folio.
- Report on an Explosion at the James Watt Dock. *Lond.* 1884. folio.
- Report by Deputation of Harbour Trustees appointed to visit and report on the Systems and Appliances for Coal-tipping and Warehousing at the various Ports in Wales, 1881. *Greenock*, 1881. 8vo.
- GREENOCK PHILOSOPHICAL SOCIETY. Papers No. 1-8. *Greenock*, 1865-87. 8vo.
- GREENOUGH, G. B. Address to the Royal Geographical Society. *Tract.* 8vo. vol. 68. *Lond.* 1841. 8vo.
- Correspondence on the subject of the Geological Map of India : compiled by Prof. Greenough. *Madras*, 1857. 8vo.
- Geological Map of England and Wales. 1865. 8vo.

- GREENWICH OBSERVATORY—continued.** Catalogue of 1,576 stars, formed from the observations made during six years, from 1848–53 . . . and reduced to the epoch 1850. By G. B. Airy. *Lond.* 1856. 4to.
- Copies of extracts of supplemental report from the Rev. J. Robinson on the probable effects of any Railway passing within a given distance of the Royal Observatory at Greenwich. *Lond.* 1846. folio.
- Copy of extract of Report of Sir J. South on the probable danger of any Railway passing near the Observatory. *Lond.* 1846. folio.
- Copy of minutes of the Proceedings of the Board of Visitors of the Royal Observatory concerning the proposed South Eastern and London, Chatham and Dover Railway passing through Greenwich Park. *Lond.* 1865. folio.
- Correspondence relative to the effect on Greenwich Observatory of a proposed Railway through Greenwich Park. *Lond.* 1846–65. folio.
- Description of the great Equatorial at the . . . Observatory. By G. B. Airy. (*Observations for 1868.*) *Lond.* 1869. 4to.
- Determination of the longitude of Valentia in Ireland, by transmission of chronometers. *Lond.* 1846. 4to.
- Magnetical and Meteorological Observations, made in the years 1840 to 1847. By J. Pond. 7 vols. *Lond.* 1843–49. 4to.
- Magnetical and Meteorological Observations made . . . in the year 1847 : under the direction of G. B. Airy. *Lond.* 1849. 4to.
- On the corrections of Bouvard's elements of the orbits of Jupiter and Saturn. By H. Breen. [*Lond.*] 1869. 4to.
(Appendix I. to Greenwich Observations, 1868.)
- Rates of Chronometers on trial for purchase by the Board of Trade of Admiralty, 1867–79 (1880, etc.). [*Lond.*] 1880, etc. 4to.
- Rates of Deck Watches on trial for purchase by the Board of Admiralty, 1888–89, etc. [*Lond.*] 1889, etc. 4to.
- Reduction of Greenwich Meteorological Observations. *Lond.* 1878. 4to.
- Reductions of the Greenwich Planetary Observations, 1831, 1835. *Greenwich*, 1864. 4to.
(Appendix II. to Greenwich Observations, 1864.)
- Reduction of the Observations of the Moon . . . from 1750 to 1830 (1831 to 1851), computed under the superintendence of G. B. Airy. 3 vols. *Lond.* 1848–59. 4to.
- Reduction of the Observations of Planets made . . . from 1750 to 1830 : computed . . . under the superintendence of G. B. Airy. *Lond.* 1845. 4to.
- Reports of the Astronomer Royal to the Board of Visitors. *Greenwich*, 1836, etc. 4to.

- GREENWICH OBSERVATORY**—*continued*. Results of Astronomical Observations, 1847–1858. By G. B. Airy. 2 vols.
[*London*. 1848–59 ?] 4to.
- Results of Magnetical and Meteorological Observations, 1848–58. By G. B. Airy. [*London*. 1860 ?] 4to.
(From the Greenwich Observations.)
- GREENWOOD, G., Col.** Rain and Rivers; or, Hutton and Playfair against Lyell and all comers. 2nd edition.
London. 1866. 8vo.
- GREENWOOD, J.** The Sailor's Sea-book: rudimentary treatise on navigation . . . 5th edition. *London*. 1865. 8vo.
- GREENWOOD, T.** Free Public Libraries, *etc.* *London*. 1886. 8vo.
- GREENWOOD, W. H.** A Manual of Metallurgy. 2 vols.
London. 1874–75. 8vo.
- [Another edition.] 2 vols. *London*. 1875, 85. 8vo.
- Steel and Iron. *London*. 1884. 8vo.
- 5th edition. *London*. 1891. 8vo.
- GREENWOOD, W. N.** A Discussion of a series of Tidal Observations, taken at eighteen stations on the West Coast of England and Scotland, to determine the effect of Atmospheric pressure on the Wave, *etc.* *Lancaster*, 1890. folio.
- Greenwood's Nautical, general, and Coasting Kludonometric Tide Tables, for the Lancashire Coast . . . shewing the time of high water and height of tide at [several British and Continental Ports], 1888, *etc.* *Lancaster*, 1887, *etc.* 8vo.
- Nautical, general, and Coasting Kludonometric Tide Tables, Port directory, Harbour and Dock guide and advertiser. Tidal Currents with Charts of the North and Irish seas, *etc.* *Lancaster*, 1892. 8vo.
- Tides and tidal phenomena considered in connection with Atmospheric Pressure. [*Papers of the Shipmasters' Soc.*, No. 30.] *London*. 1894. 8vo.
- GREEVES, A. F. A.** An account of the Medicinal Water of Ilkeston, *etc.* *Tract*. 8vo. vol. 76. *Nottingham*, 1833. 8vo.
- GREG, R. P., and LETTSON, W. G.** Manual of the Mineralogy of Great Britain and Ireland. *London*. 1858. 8vo.
- GREGORY, Sir C. H.** On Railway Cuttings and Embankments: with an account of some Slips in the London Clay on the . . . London and Croydon Railway. *Tract*. 8vo. vol. 500.
(From Min. Proc. Inst. C.E.) *London*. 1844. 8vo.
- Practical rules for the management of a Locomotive Engine, *etc.* *London*. 1841. 16mo.
- Report to the directors of the Grand Trunk Railway Company of Canada on the works and rolling stock. *Tract*. 8vo. vol. 138. *London*. 1857. 8vo.
- Widening of London Bridge. Report, *etc.* 1875. See JONES, H., and GREGORY, Sir C. H.

- GREGORY, J. Our Ocean Mail Steamers : the Perils of Navigation and Mail Subsidies. *Tract. 8vo. vol. 332. Lond. 1868. 8vo.*
- GREGORY, O. Hints . . . for the use of teachers of elementary Mathematics, *etc. Lond. 1840. 12mo.*
- Mathematics for practical men, *etc. Lond. 1825. 8vo.*
- — 3rd edition. Enlarged by H. Law. *Lond. 1848. 8vo.*
- A Treatise of Mechanics. 3rd edition. 2 vols. *Lond. 1815. 8vo.*
- — 4th edition. 3 vols. *Lond. 1826. 8vo.*
- GREIG, A. Dundee Street Improvements and Drainage of Loches. *Tract. 8vo. vol. 407. [Lond.] 1883. 8vo.*
- GREIG, D. On the application of Steam-power to Cultivation. *See FOWLER, J., and GREIG, D.*
- GREIG, J. K. Bank Note and Banking Reform : with suggestions for a new Banking Act. *Tract. 8vo. vol. 332. Lond. 1880. 8vo.*
- GREINER, A. De la définition de l'acier. *Tract. 8vo. vol. 255. Liège, 1875. 8vo.*
- Les installations Bessemer américaines adaptées au procédé basique d'après les plans de M. Holley. *Tract. 8vo. vol. 480. Liège, 1882. 8vo.*
- GRENFELL, H. R. The Bimetallic Controversy, *etc. 1886. See GIBBS, H. H., and GRENFELL, H. R.*
- Bi-Metallism. *Tract. 8vo. vol. 421. Manchester, 1886. 8vo.*
- GRENSTED, Rev. F. F. A Theory to account for the Airless and Waterless condition of the Moon, *etc. Tract. 8vo. vol. 456. Liverpool, 1888. 8vo.*
- GRESHAM, J. Improvements in Arrangements to be used in connection with Vacuum Brakes, by which Signals can be given on Railway Trains by the Passengers which will be observed by the driver and guard. [Patent Specification.] *Tract. 4to. vol. 121. [Lond. 1890.] 8vo.*
- GRESHAM, Sir T. A brief Memoir of Sir T. Gresham ; with an abstract of his will, and of the Act of Parliament, for the foundation and government of Gresham college. *Tract. 8vo. vol. 216. Lond. 1833. 8vo.*
- GRESLEY, W. S. A Glossary of Terms used in Coal Mining. *Lond. 1883. 8vo.*
- GREVE, A. Verhandelng over het zeegat van Goedereede. *Rotterdam, 1851. 4to.*
- GREY, H. The Classics for the Million. *Lond. 1881. 8vo.*
- GREY, L. J. H. Irrigation in the Bengal Presidency. *Tract. 8vo. vol. 269. 1875. 8vo.*
- Manual of construction and management of District Canals. *Lahore, 1885. 8vo.*

- GREYMOUTH, N.Z. Papers relating to the Greymouth Protective Works. *Wellington*, 1872. folio.
- GRIBBLE, T. G. Preliminary Survey and Estimates. *Lond.* 1891. 8vo.
- GRIDAINE, L. *See* CUNIN-GRIDAINE, L.
- GRIER, W. W. Rural Hydraulics: a practical treatise, *etc.* *Philadelphia*, 1877. 8vo.
- GRIERE, J., and M'LAREN, J. Report on the utility of a Bar Iron Railway from the city of Edinburgh to Dalkeith and to the harbour of Fisherrow. *Tract.* 4to. vol. 80. *Edinburgh*, 1824. 4to.
- GRIERSON, J. Railway Rates, English and Foreign. *Lond.* 1886. 8vo.
- GRIERSON, T. B. Electric Lighting by Water Power. *Tract.* 8vo. vol. 380. *Dublin*, 1883. 8vo.
- The Enlargement of Westland Row Terminus, *etc.* [Part 2.] *Tract.* 8vo. vol. 532. *Dublin*, 1893. 8vo.
- GRIFFIN, C., and Co. Griffin's Electrical Engineers' Price-book . . . Edited by H. J. Dowsing. *Lond.* 1893. 8vo.
- GRIFFIN, G. F. The Economic Permanent Way Company's new Railway Systems of 1869. Timber Sleeper system. *Tract.* 8vo. vol. 179. *Westminster*, 1869. 8vo.
- GRIFFIN, S. Modern Gas-engine Practice, *etc.* *Tract.* 8vo. vol. 519. [Lond. 1889.] 8vo.
- GRIFFIN, W. N. The Elements of Algebra and Trigonometry. *Lond.* 1871. 12mo.
- A Treatise on Optics. 2nd edition. *Cambridge*, 1842. 8vo.
- GRIFFIS, W. E. The Mikado's Empire . . . 5th edition, with supplementary chapters, *etc.* *New York*, [1886?] 8vo.
- GRIFFITH, C. D. Speech on the subject of the Euphrates Railway and the Suez Canal. *Tract.* 8vo. vol. 123. *Lond.* 1857. 8vo.
- GRIFFITH, E. Cases of supposed Exemption from Poor Rates, claimed on the ground of extra-parochiality, with a preliminary sketch of the ancient history of the Parish of St. Andrew, Holborn. *Lond.* 1831. 8vo.
- GRIFFITH, J. Colliery Explosions. Who is to be blamed? *etc.* *Tract.* 8vo. vol. 328. *Merthyr*, 1867. 8vo.
- GRIFFITH, J. P. An Address to the Institution of Civil Engineers of Ireland, *etc.* *Tract.* 8vo. vol. 448. *Dublin*, 1887. 8vo.
- Best means of Improving Ports established on low-lying sandy coasts similar to those of Belgium. *Tract.* 8vo. vol. 321. *Dublin*, 1880. 8vo.
- Notes on Creosoting Wood Paving Sets. *Tract.* 8vo. vol. 507. *Dublin*, 1890. 8vo.

- GRIFFITH, J. P.—*continued*. On Dublin main Drainage Outfalls.
Tract. 8vo. vol. 392. Lond. 1885. 8vo.
- On the Wrought Iron Dock Gates of Dublin Graving Docks.
Tract. 8vo. vol. 321. Dublin, 1880. 8vo.
- The Port of Dublin. *Tract. 8vo. vol. 486. Dublin, 1888. 8vo.*
- Standard Tests and Specifications. *Tract. 8vo. vol. 491. Dublin, 1890. 8vo.*
- GRIFFITH, J. W., and HENFREY, A. The Micrographic Dictionary.
 4th edition. 2 vols. in 1. *Lond. 1883. 8vo.*
- GRIFFITH, R. Thoughts and facts relating to the increase of
 agriculture, manufactures, and commerce, by the extension of
 Inland Navigation in Ireland. *Tract. 8vo. vol. 94. Dublin, 1795. 8vo.*
- GRIFFITH, R., *jun.* Geological and Mining Report on the Leinster
 coal district. *Tract. 8vo. vol. 44. Dublin, 1814. 8vo.*
- Geological and Mining Survey of the Connaught coal district in
 Ireland. *Tract. 8vo. vol. 44. Dublin, 1818. 8vo.*
- GRIFFITH, W. Rating Gas and Water Undertakings, *etc.*
Lond. 1887. 8vo.
- GRIFFITHS, H. W. Iron and Steel Manufacturers of Great Britain,
 and Brand Book of British Iron and Steel. *Lond. 1883. 8vo.*
- GRIFFITHS, J. A. Queensland Southern and Western Railway.
 Scheme for a Metropolitan Extension to Navigable Water. *Tract. folio. vol. 25. Brisbane, 1878. folio.*
- GRIFFITHS, J. W. The Ship-BUILDER'S Manual, and nautical referee.
 2nd edition, enlarged. 2 vols. *New York, 1856. 4to.*
- Treatise on Marine and Naval Architecture, *etc.* 3rd edition.
New York, 1853. 4to.
- — New edition. *Lond. 1857. 4to.*
- GRIFFITHS, R. Description of improved patent Screw Propeller
etc. *Tract. 8vo. vol. 201. Lond. [1862.] 8vo.*
- The Screw-Propeller: what it is and what it ought to be. *Tract. 8vo. vol. 201. Lond. 1860. 8vo.*
- GRIFFITHS, S. Griffiths' Guide to the Iron Trade of Great Britain.
Lond. 1873. 8vo.
- GRIFFITHS, W. Trusses of Wood and Iron: practical application
 of science in determining the stresses, breaking weights, *etc.*
Lond. 1886. 8vo.
- GRIGGS, W. Illustrated pamphlet of Photo-chromo-lithography.
Tract. 8vo. vol. 337. Lond. 1882. 8vo.
- GRIMALDI, F. Instructions for the use and preservation of Port-
 able Engines and Threshing Machines, *etc.* *Lond. 1880. 8vo.*

- GRIMALDI, F.—*continued*. [Another edition.] Instructions for the use and preservation of Portable Engines and Threshing Machines, *etc.* *Lond.* 1886. 8vo.
- GRIMAU, A. A new Dictionary of the French and English Languages. [1886.] *See* CLIFTON, E. C., and GRIMAU, A.
- GRIMSBY. *See* GREAT GRIMSBY.
- GRIMSHAW, R. The Application of Frictional Electricity to the Purification of Middlings. *Tract.* 8vo. vol. 468.
[Philadelphia,] 1882. 8vo.
- Modern Milling. *Philadelphia*, 1881. 8vo.
- Saws. (Supplement.) *Philadelphia*, 1880, 82. 8vo.
- The Steam Engine Catechism. 8th edition.
New York, 1889, *etc.* 12mo.
- GRIMSTON, R. Government and the Telegraphs. No. II. Being a communication to the Duke of Montrose, on his Grace's "Correspondence with the Lords Commissioners of the Treasury relating to the Electric Telegraphs Bill." *Tract.* 8vo. vol. 185.
Lond. 1868. 8vo.
- GRINLINTON, J. J. Abstract of observations on the great Solar Eclipse at Colombo. *Tract. folio. vol.* . . . *Colombo*, 1868. folio.
- GRIPPER, C. F. Railway Tunnelling in heavy ground.
Lond. 1879. 4to.
- GRISSELL, T. Account of the Scaffolding used in erecting the Nelson Column, Trafalgar Square. *Tract.* 8vo. vol. 59.
(From Min. Proc. Inst. C.E.) *Lond.* 1844. 8vo.
- GRISWOLD, C. D. The Isthmus of Panama, and what I saw there.
New York, 1852. 12mo.
- GRITZNER, M. C. Engravings accompanying the report of the Commissioner of Patents for the year 1855.
Washington, 1855. 4to.
- GRIVEL, —. Description of a self-acting Skid. *Tract.* 8vo. vol. 134.
Lond. [1840?] 8vo.
- GROSSETESTE, W. Chemin de fer de Mulhouse à Thann inauguré le 1^{er} Septembre, 1839. Notes et documents, *etc.*
Mulhouse, 1889. 8vo.
- GROSVENOR GALLERY LIBRARY. Catalogue of English Works in the Circulating Library. *Lond.* 1884. 8vo.
- Catalogue of Foreign Works and Music in the Circulating Library. *Lond.* 1884. 8vo.
- GROTE, A. R. Descriptions of Noctuidæ, chiefly from California. *Tract.* 8vo. vol. 474. *Washington*, 1878. 8vo.
(From the Bulletin of the U.S. Geol. and Geogr. Survey.)
- GROTE, G. Plato's Doctrine respecting the Rotation of the Earth, and Aristotle's comment upon that doctrine. *Tract.* 8vo. vol. 219.
Lond. 1860. 8vo.

- GROTH, Dr. P. Ueber die Molekularbeschaffenheit der Krystalle. Feste, etc. *Tract.* 4to. vol. 113. *München*, 1888. 4to.
- GROTHER, A. The Tay Bridge: its history and construction. *Dundee*, 1878. 8vo.
- GROTHER, H. Die technischen Fachschulen in Europa und Amerika. *Berlin*, 1882. 4to.
- International Patent Congress in Vienna, 1873. *Tract.* 8vo. vol. 254. *Lond.* 1875. 8vo.
- GROUVELLE, P., and JAUNES, —. Guide du chauffeur et du propriétaire des machines à vapeur. 2^e édition. (Atlas of plates wanting.) *Paris*, 1840. 8vo.
- GROVE, Sir G. Geography. *Lond.* 1877. 12mo.
- GROVE, W. R. A Lecture on the Progress of Physical Science since the opening of the London Institution. *Lond.* 1842. 8vo.
- On the Correlation of Physical Forces: being the substance of a course of lectures delivered in the London Institution. *Lond.* 1846. 8vo.
- GROVER, J., Captain. An Appeal to the British Nation in behalf of Colonel Stoddart and Captain Conolly, now in captivity in Bokhara. *Lond.* 1843. 8vo.
- The Bokhara victims; with an Appendix containing a narrative of Saaleh Mahomed, etc. *Lond.* 1845. 8vo.
- Lord Aberdeen and the Ameer of Bokhara: in reply to the Edinburgh Review. 4th edition. *Tract.* 8vo. vol. 63. *Lond.* 1845. 8vo.
- GROVER, J. W. Ancient Reclamations in the English Fenlands. *Tract.* 8vo. vol. 314. [*Lond.* 1878.] 8vo.
- Estimates and Diagrams of Railway Bridges for turnpike, public, and occupation roads, in the embankments of double or single lines, and cuttings of double lines, with form for calculating quantities in skew structures, etc.; also culverts of various dimensions. *Lond.* 1866. 4to.
- — 2nd edition, enlarged. *Lond.* 1870. 4to.
- An explanation of the London Water Question. *Tract.* 8vo. vol. 523. (From the Trans. Surveyors' Inst.) *Lond.* 1892. 8vo.
- The facilities of "flexible" Rolling-stock for economically constructing, maintaining, and working railways or tramways. *Tract.* 8vo. vol. 196. *Lond.* 1870. 8vo.
- Iron and Timber Railway Superstructures, etc. *Lond.* 1874. folio.
- Proposed Richmond Footbridge, etc. *Tract.* folio. vol. 45. *Lond.* 1890. folio.
- Section of a Well at Hampstead Brewery. *Lond.* 1878. 8vo.
- Suez Canals from the most ancient times to the present. *Tract.* 8vo. vol. 291. [*Lond.*] 1877. 8vo.

- GROVES, E. C., and THORPE, W. Chemical Technology: or, Chemistry in its application to arts and manufactures . . . Vol. I. Fuel and its applications: by E. J. Mills and F. J. Rowan. *Lond.* 1889. 8vo.
- GRUBB, Sir H. Telescopic Objectives and Mirrors: their preparation and testing. *Tract.* 8vo. vol. 422. *Lond.* 1886. 8vo.
- GRUBB, T. Description of the Great Melbourne Telescope. 1869. *See* ROBINSON, T. R., and GRUBB, J.
- GRUEBER, P. Die hydrotechnischen Verhältnisse Oberitaliens und der Kanal Cavour. *Tract.* 8vo. vol. 430. *Wien*, 1886. 8vo.
- GRUNDY, J. Proposal and Estimate for a general Drainage of the Waters between Lincoln and Boston, and report of a meeting held at Boston . . . to consider the question. *Tract.* 8vo. vol. 12. *Lincoln*, 1753. 8vo.
- GRUNER, L. Carte et coupes du terrain houiller de la Loire. *St. Étienne*, 1847. folio.
- Études sur l'acier: note sur propriétés mécaniques des aciers phosphores. *Tract.* 8vo. vol. 196. *Paris*, 1870. 8vo.
- Exposition Universelle de Vienne en 1873, section française. Rapport sur l'industrie minérale. *Tract.* 4to. vol. 73. *Paris*, 1874. 4to.
- The Manufacture of Steel, etc. *New York*, 1872. 8vo.
- Studies of Blast Furnace phenomena, etc. *Lond.* 1873. 8vo.
- Traité de métallurgie. 1^{re} partie. 2 vols. (Atlas.) *Paris*, 1875, 78. 8vo. and 4to.
- *See* OTTOLINI, V., and LOSE, F. The Terra-Cotta Architecture of north Italy. . . Edited by L. Gruner. 1867.
- GRUNER, N. The Manufacture of Steel: examination of the Heaton process. *Tract.* 8vo. vol. 209. *Lond.* 1870. 8vo.
- GRUNINGER, O. The Production of Combustible Gases, etc. *Tract.* 8vo. vol. 519. *Lond.* 1890. 8vo.
- GRUSON, H. Ascenseur hydraulique des Fontinettes sur le canal de Neufossé. *Tract.* 8vo. vol. 484. *Lille*, 1889. 8vo.
- GRUSON, H., and BARBET, L. A. Étude sur les moyens de franchir les chutes des canaux, etc. (Atlas.) *Paris*, 1889, 90. 8vo. and folio.
- GRÜTTEFIEN, E. On the Results obtained with various systems of Iron Permanent Way on the Prussian State Railways, etc. [German and English.] *Tract.* 8vo. vol. 464. *Düsseldorf*, 1880. 8vo.
- GRYE, A. BOUQUET DE LA. *See* BOUQUET DE LA GRYE, A.
- GUAYANA. *See* GUIANA.

- GUEBHARD, A. Chemins de fer, etc. 1868. See VUILLEMIN, L., GUEBHARD, A., and DIEUDONNÉ, C.
- GUEDIS, D. H. DE B. P. Relatorio e circumnavegação. *Tract.* 8vo. vol. 349. *Rio de Janeiro*, 1882. 8vo.
- GUENYVEAU, A. Nouveaux procédés pour fabriquer la fonte et le fer en barres. *Tract.* 8vo. vol. 56. *Paris*, 1835. 8vo.
- GUÉRARD, A. Amélioration des embouchures du Rhône. *Tract. folio.* vol. 46. (Lithographed.) *Marseille*, 1885, 88. folio.
- La Chambre de Commerce et le port de Marseille à l'Exposition de 1889. *Tract.* 8vo. vol. 481. *Marseille*, 1889. 8vo.
- Emploi de la romaine pour le pesage automatique des grains. *Tract.* 8vo. vol. 484. *Marseille*, 1889. 8vo.
- Improvement in the mouth of the Rhone. [5th Int. Congr. Int. Nav.] [Paris, 1892.] 8vo.
- [Marseille.] Le Port-Vieux, les égouts et le choléra. *Tract.* 8vo. vol. 412. *Marseille*, 1885. 8vo.
- Observations faites pendant l'épidémie cholérique de 1885, au port de Marseille. *Tract. folio.* vol. 39. *Marseille*, 1886. folio.
- On the Management of Commercial Ports and their Equipment, with especial reference to the Port of Marseilles. [2nd Int. Mar. Congr.] *Lond.* 1893. 8vo.
- GUERICKE, O. DE. Experimenta nova (ut vocantur) Magdeburgica de vacuo spatio; accesserunt quedam de aëris pondere circa terram; de virtutibus mundanis, et systemate mundi planetario; de stellis fixis, etc. *Amstelodami*, 1672. folio.
- GUERREIRO, J. V. M. O porto de Lisboa em 1882. *Tract.* 8vo. vol. 475. *Lisboa*, 1883. 8vo.
- GUEST, R. A compendious History of the Cotton Manufacture; with a disproof of the claim of Sir R. Arkwright to the invention of its ingenious machinery. *Manchester*, 1823. 4to.
- GUEST AND CHRIMES. F. Siemens' Patent Regenerative Gas Burner. *Tract. folio.* vol. 42. *Lond.* 1884. folio.
- GUETTARD, —. Atlas et description minéralogiques de la France. 1780. See MONNET, M., and GUETTARD, —.
- GUETTIER, A. La fonderie en France. Nouvelle édition. 5 vols. (Atlas 2 vols.) *Paris*, 1882. 8vo. and 4to.
- Le forgeron mécanicien. *Paris*, 1887. 8vo.
- A practical Guide for the Manufacture of Metallic Alloys. *Philadelphia*, 1872. 8vo.
- GUGLIELMINI, D. Opera omnia mathematica, hydraulica, medica, et physica; accessit vita auctoris, a J. B. Morgagni. 2 vols. *Geneva*, 1719. 4to.

- GUGLIELMINI, D.—*continued*. Della natura de' fiumi, trattato fisico-matematico. *Bologna*, 1697. 4to.
- — Nuova edizione. *Bologna*, 1739. 4to.
- GUIANA. Concession relating to the State of Guayana, South America, and Reports on its produce, gold-fields, *etc.* *Tract. folio. vol. 29.* *Lond.* [1881.] folio.
- Plan showing the principal Gold mines in French Guayana, 1888. *Tract. 4to. vol. 109.* *Lond.* 1888. 4to.
- See also* BRITISH GUIANA.
- GUILD, J. Letter to the Committee of merchants, manufacturers, and shipowners of Dundee, relative to the improvement of the Harbour of Dundee. *Tract. 8vo. vol. 75.* *Dundee*, 1814. 8vo.
- GUILDFORD, *Surrey*. Guildford Corporation Act, 1886. *Lond.* 1886. folio.
- GUILDHALL LIBRARY. Catalogue of the library of the Corporation of London, instituted in the year 1824; with an alphabetical list of authors annexed. (Supplements.) *Lond.* 1859, *etc.* 8vo.
- Catalogue of the Guildhall Library of the City of London. *Lond.* 1889. 8vo.
- Catalogue of sculpture, paintings, engravings, and other works of art belonging to the Corporation, together with books not included in the catalogue of the Guildhall Library. Vol. 2. *Lond.* 1867–8. 8vo.
- GUILHAUMON, J. B. Éléments de navigation et de calcul nautique : précédés de notions d'astronomie. 2 pt. *Paris*, 1891. 8vo. and 4to.
- GUILLAUME, P. Machines auxiliaires en usage sur les bâtimens de la flotte. (Atlas of plates.) *Paris*, 1887. 8vo. and folio.
- GUILLEMAIN, P. Navigation intérieure. Rivières et canaux. 2 vols. *Paris*, 1885. 8vo.
- GUILLEMIN, A. The Applications of Physical Forces : translated from the French . . . and edited by J. N. Lockyer. *Lond.* 1877. 8vo.
- Electricity and Magnetism : translated from the French, *etc.* *Lond.* 1891. 8vo.
- The Forces of Nature : translated from the French and edited by J. Norman Lockyer. *Lond.* 1872. 8vo.
- GUILLEMIN, H. La Meuse. Études faites par ordre du gouvernement belge. I. Rapport du 23 décembre, 1839. *Bruxelles*, 1840. folio.
- GUINAND, P. L. Some account of the late M. Guinand, and of the important discovery made by him in the manufacture of flint-glass for large Telescopes. *Tract. 8vo. vol. 57.* *Lond.* 1825. 8vo.
- GUISELY, YEADON AND RAWDON RAILWAY. Minutes of Evidence . . . taken before the Select Committee on the Guisely, Yeadon and Rawdon Railway Bill. *Lond.* 1885. folio.

- GUITER, A. J. J. Marbrières d'Égypte. Explorations du Gebel-Geneffe. *Tract.* 8vo. vol. 208. *Alexandrie*, 1871. 8vo.
- GULDBERG, C. M., and MOHN, H. Études sur les mouvements de l'atmosphère. 2 pt. *Tract.* 4to. vol. 93. *Christiania*, 1876, 80. 4to.
- GULF OF DARIEN AND PACIFIC OCEAN SHIP CANAL AND STEAM NAVIGATION COMPANY. Prospectus. *Tract.* 8vo. vol. 286. *Lond.* 1845. 8vo.
- GULLY, R., and DENHAM, —, *Capt.* Journals kept during a Captivity in China in 1842. *Lond.* 1844. 8vo.
- GUMPEL, C. G. On the Steering of Ships in special relation to a new form of balanced rudder. *Tract.* 4to. vol. 69. *Lond.* 1870. 4to.
- GUMPERTZ, H., and LEBRUN, —. Traité pratique et théorique des mines. *Paris*, 1805. 4to.
- GUN, *Le Col.* [*pseud.*] L'électricité appliquée à l'art militaire. *Paris*, 1889. 8vo.
- GUNESCH, R. R. von. Wechselwirkungen von Eisenbahnen und Volkswirtschaft. *Tract.* 8vo. vol. 260. *Wien*, 1876. 8vo.
- GUNSON, W. T. Paper on an improved system of Tramway Construction. *Tract.* 8vo. vol. 319. *Manchester*, 1879. 8vo.
- Rusholme Tramways. *Tract.* folio. vol. 28. *Manchester*, 1880. folio.
- GÜNTHER, G. J. Armour-plating; with a description of a system of iron or steel armour. *Tract.* 8vo. vol. 168. *Lond.* 1868. 8vo.
- Improvements in Building-Stones. *Tract.* 4to. vol. 41. [1870?] 4to.
- GUPPY, H. F. J. The Trinidad official and commercial Register and Almanack. *Tract.* 8vo. vol. 165. *Port of Spain*, 1869. 8vo.
- GUPPY, S. and S. Specification of Bridges and Railroads. *Tract.* 4to. vol. 61. *Lond.* 1856. 4to.
- GURLT, A. Bergbau und Hüttenkunde. *Tract.* 8vo. vol. 298. *Essen*, 1877. 8vo.
- Die Bereitung der Steinkohlen-Briquettes mit Rücksicht auf die Verhältnisse in Rheinland und Westfalen. *Tract.* 8vo. vol. 433. *Braunschweig*, 1880. 8vo.
- GURNEY, Sir G. Account of the invention of the Steam-jet or Blast; and its applications to steamboats and locomotive engines. In reference to the mistaken claim put forth by Mr. Smiles in his "Life of the late Mr. George Stephenson." *Tract.* 8vo. vol. 229. *Lond.* 1859. 8vo.
- Drawings of his steam carriage as seen running in the Regent's Park. *Tract.* 4to. vol. 73. [1827.] 4to.

- GURNEY, Sir G.—*continued*. Observations on Steam-Carriages on turnpike roads. *Tract*. 8vo. vol. 22. Lond. 1832. 8vo.
- Observations pointing out means by which a Seaman may identify Lighthouses and know their distance. *Tract*. 8vo. vol. 362. Lond. 1864. 8vo.
- GUSTAFSON, A. The United States and the Panama Canal. *Tract*. 8vo. vol. 376. Lond. 1882. 8vo.
- GUSTAFSSON, G. V. Observations on the Steam Navy of Great Britain, and the horse-power of marine engines, *etc.* *Tract*. 8vo. vol. 84. Lond. 1847. 8vo.
- Practical observations on the present state of the Steam Engine in its application to marine purposes, *etc.* *Tract*. 8vo. vol. 84. Lond. 1847. 8vo.
- A Letter to the editor of the Practical Mechanic and Engineers' Magazine: being a reply to his review of "Practical observations on the present state of the steam engine," by the same author. *Tract*. 8vo. vol. 84. Lond. 1847. 8vo.
- GUTERMUTH, M. T. Dampfmaschinen auf der Weltausstellung in Chicago, 1893. *Tract*. 4to. vol. 115. Berlin, 1893. 4to.
- Kälteverteilungsanlagen in Amerika. *Tract*. 4to. vol. 115. [Berlin, 1892.] 4to.
- Neuere Konstruktionen der amerikanischen Personenaufzüge. *Tract*. 4to. vol. 115. Berlin, 1894. 4to.
- GUTHRIE, E. Payment of Interest on capital during construction of Works. *Tract*. 8vo. vol. 419. Manchester, 1886. 8vo.
- Rock Asphalte and Concrete, in their application to road making and building. *Tract*. 8vo. vol. 258. Manchester, 1874. 8vo.
- GUTHRIE, F. Cantor Lectures on Science Teaching, *etc.* Lond. 1886. 8vo.
- Continuous Girders, arched ribs and tension circles. *Tract*. 8vo. vol. 313. Cape Town, 1878. 8vo.
- The Elements of Heat and of Non-Metallic Chemistry. Lond. 1868. 8vo.
- Magnetism and Electricity. Lond. [1880.] 8vo.
- GUTHRIE, J. The River Tyne: its history and resources. Newcastle, 1880. 8vo.
- GUTTERIDGE, W. The "ne plus ultra" of assaying, weighing, measuring, and valuing of Spirituous Liquors, *etc.* Vol. 2. Lond. 1828. 8vo.
- GUTTMANN, O. Blasting: a handbook for the use of Engineers and others, *etc.* Lond. 1892. 8vo.
- Guttman's Nitric Acid Plant. *Tract*. 4to. vol. 117. Lond. 1891. s. sh. 4to.

- GUY, W. A. Analysis of evidence laid before the Health of Towns Commission and the select committee of the House of Commons on metropolitan Sewage Manure, *etc.* 3rd edition. *Tract.* 8vo. vol. 149. *Lond.* 1848. 8vo.
- The application of the Refuse of Towns to the purposes of Agriculture; being an account of an experiment on the small scale, *etc.* *Tract.* 8vo. vol. 149. *Lond.* 1848. 8vo.
- The Hose compared with the Watering Pot; being a report to the directors of the Metropolitan Sewage Union Company. *Tract.* 8vo. vol. 149. *Lond.* 1848. 8vo.
- On the Claims of Science to public recognition and support; with special reference to the so-called "Social sciences." *Tract.* 8vo. vol. 205. *Lond.* 1870. 8vo.
- GUY, W. A., and SHERBORN, F. Report to the directors of the Metropolitan Sewage Manure Company, on the application of liquid manure in the neighbourhood of Manchester, *etc.* *Tract.* 8vo. vol. 149. 1847. 8vo.
- GUYOT, J. De la télégraphie de jour et de nuit. *Paris*, 1840. 8vo.
- GWILT, J. Elements of Architectural Criticism for the use of students, amateurs, and reviewers. *Lond.* 1837. 8vo.
- An Encyclopædia of Architecture, *etc.* 2nd edition. *Lond.* 1851. 8vo.
- — New edition, with additions by Wyatt Papworth. *Lond.* 1867. 8vo.
- — New edition. *Lond.* 1881. 8vo.
- Rudiments of Architecture, practical and theoretical. *Lond.* 1835. 8vo.
- — 2nd edition. *Lond.* 1839. 8vo.
- Sciography: or, examples of Shadows, with rules for their projection. 3rd edition. *Lond.* 1833. 8vo.
- A Treatise on the Equilibrium of Arches, *etc.* 2nd edition. *Lond.* 1826. 8vo.
- GWYNN, J. London and Westminster improved; illustrated by plans. To which is prefixed a discourse on public magnificence; with observations on the state of arts and artists in this kingdom, *etc.* *Lond.* 1766. 4to.
- GWYNNE, J. and W. Notes on Centrifugal Pumping Machinery for Reclamations, Sewage and Dock Works. *Lond.* 1885. 8vo.
- GWYNNE, J. S. Direct acting balanced Centrifugal Pump. *Tract.* 8vo. vol. 99. *Lond.* [1850.] 8vo.
- Patent double-acting balanced pressure Water Wheel. *Tract.* 4to. vol. 32. [1851.] 4to.
- GYFFORD, E. Designs for elegant Cottages and small Villas, *etc.* *Lond.* 1806. 4to.

- GYLDÉN, H. Untersuchungen über die Constitution der Atmosphäre und die Strahlenbrechung in derselben. *Tract. 4to. vol. 78.*
St. Petersburg, 1866. 4to.
(From Mémoires de l'Académie des Sciences de St. Pétersbourg.)
- GYMPIE, *Queensland.* Projected Gympie Water-Works. General Description [by J. B. Henderson]. [*Brisbane, 1886.*] folio.
- Tenders for ironwork for the bridges on the Gympie Railway.
Brisbane, 1878. folio.
- Gympie and Maryborough Railway. Different routes.
(Official Report.) *Brisbane, 1876. folio.*
- GZOWSKI, Sir C. S. Description of the International Bridge constructed over the Niagara River, near Fort Erie, etc.
Toronto, 1873. 4to.

60858

2792

L65I6

v.1

Institution of civil
engineers, London. Library
Catalogue.

60 51

L65I6

v.1

London

UNIVERSITY OF CALIFORNIA LIBRARY

